AMERICAN AGRICULTURIST,

FOR THE

Farm, Garden, and Household.

"AGRICULTURE IS THE MOST HEALTHFUL, MOST USEFUL, AND MOST NOBLE EMPLOYMENT OF MAN."—WASHINGTON.

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Suggestions and Notes for the Month.

September might properly be placed first in farmer's Calendar. Although each month brings it labors, *this* witnesses the commencement in cultivation of the great crop of the world, wheat, which for ages has taken pre-eminence among cereals, and upon which more than any other depends the most important interests of society. No man could estimate the results of the entire failure of this grain for only a single year: it would incite greater revolutions than history has yet recorded. The farmer may with honest pride often revert to the fact that he moves the great balance wheel of society, and it should be his constant endeavor to labor with a zeal and an intelligence befitting his station. Success in his calling is not merely a matter of personal gain, it brings a benefit to society, and its influence is felt in every sphere, from the mechanic in the workshop, to the statesman in the National Council. The progress of agricultural science, though slow compared with achievements in other fields, has contributed very largely to the present position of America among the nations, and enabled her thus far to resist a revolution which would have torn many other existing commonwealths to fragments. While we have bread to eat and to sell, our strength is untouched, though temporary reverses attend our arms.

The sower should go forth cheerfully at this time. The past three years have yielded unprecedented plenty. Scourges of drouth, of insects, and other inflictions ruinous to the wheat crop, have been confined to limited areas, the great aggregate has filled to overflowing the store-houses of the world, and the pockets of the producers. He must be perversely blind who fails to see in this the hand of that Providence that guides the affairs of nations. Without such abundance the aspects of our great internecine struggle might have been very different. Foreign nations have not cared to raise their arms against a power to which, from scarcity at home, they were compelled to look for bread. It may perhaps be too much to expect that another abundant harvest will fill our granaries and coffers. Yet, whether this be decreed, or it shall occur that the land shall withhold a large increase, there is every reason for sowing wheat largely, for improving every acre that can be *well tilled.* The prospects abroad are darkened with a gathering storm of war. Should it burst upon Europe, then what was experienced during the Crimean campaign will be felt again; the demand for our breadstuffs will absorb all the surplus we may raise. In view of this contingency, and also of the fact that there are rarely *four* successive years of plenty, we advise a large investment in this direction. It should not be forgotten that effort may often be more profitably directed to securing increased return from the number of acres usually cultivated, rather than enlarging the area put under cultivation. The former course requires less capital, less labor, and at the same time prepares the land for better returns in future. One hundred dollars properly used in draining, or other needed improvements, may increase the yield from ten to twenty per cent for a term of years.

Work for the Farm, Household, etc.

There will be little leisure on the farm this month. In addition to sowing winter grain, in many sections the corn will be ready to be cut up by the ground, early potatoes to be dug and marketed, and early apples to be gathered and disposed of. At the West, the great sorghum crop will demand attention, and those who have cultivated tobacco will find ample employment in cutting and curing. Much labor and vexation will be saved by having all necessary buildings and implements in readiness for each crop. The markets should be closely watched at this season, to determine when to dispose of grain, wool, etc. Very favorable contracts for future delivery may often be secured during the present month. Taking one year with another, it is safe to accept a price which will give a good profit on capital and labor invested.

Barns, and Outbuildings, particularly those in which hay and grain are stored, should be frequently examined, to secure their contents from injury by storms, vermin, etc. A good coat of paint will pay more than the interest of its cost in the preservation of wood-work exposed to the weather, and in the improved appearance of buildings. Autumn is a good time to apply it. Keep all buildings well insured, and protect houses and barns with lightning rods.

Beans properly harvested will command a good price. Cure and save the haulm or straw and the unripe pods for feeding to sheep.

Buckwheat should be harvested before ripe enough to waste by shelling. Save the straw for litter; it is of little value for feeding. If there be a good mill in the vicinity it will usually pay to have the grain ground for market.

Butter made this month and next, if properly worked and packed, may be kept for use or for marketing any time before next Spring, when it will command better prices. A good milk-room, clean utensils, good salt, and *sufficient working* are the essentials. Much labor will be saved by the use of a good butter worker.

Cabbages.—Market those which are mature, and keep the late crop well hoed to promote rapid growth and early heading.

Cattle.—Keep them well fed, especially milch cows, and those intented for fall beef. Give them corn or millet from the soiling patch, roots and tops from the beet and turnip field, and extra leaves from the cabbages, etc. Commence stall feeding early. The same amount of grain will make from ten to twenty per cent more flesh, if fed out before cold weather requires a large part of it to be used in keeping up the animal heat. Salt at least once a week, and allow free access to water.

Cellars.—Thoroughly cleanse and prepare for the reception of roots, apples, etc. Make rat proof by cementing the floors. Where many vegetables are to be stored, it is desirable to have a cellar under the barn for them.

Cisterns.—Cleanse before the fall rains, and if good well or spring water be not obtainable introduce a filter. Clean rain-water, even unfiltered, is the most wholesome for all purposes, and after a short experience is agreeable to the taste.

Corn.—Mark the earliest and most productive stalks to be reserved for seed, and leave it to fully ripen. Cut the stalks by the ground as soon as the grain is glazed, cure the stalks for fodder, and store under cover to be husked when time allows. See article on page 269.

Draining.—Attention is called to this item month by month, because it is believed to be one of the most desirable and best paying improvements to be introduced on most farms. It will be beneficial, not only by reclaiming swamp lands, but it will render any compact soil more productive by taking out the surplus water, giving access to the air which will bring nourishment to the roots of plants, and making the soil lighter, so that the rootlets can more easily make their way through it in their search for food. Try it according to plans described from time to time in former volumes, upon a single acre, if no more, and note the results. Finish off *all* winter grain fields with deep draining furrows to carry off surplus surface water.

Eggs.—Pack in salt those laid now, for winter use, and for selling about the holidays, when they are in large demand at the best prices.

Fences and Gates.—Cut timber for new ones needed. Replace all unsound posts and stakes before the high winds of Fall and Winter have prostrated them. Char the bottom of gate posts before setting, or give them a good coating of gas tar.

Flax should be pulled as soon as the stalk is of a yellowish tinge, the leaves having mostly fallen, and the center seed boll become of a brown color. Read articles on pages 76, 110, (March and April.)

Grain.—Thresh as soon as practicable, and store in secure bins, or market if prices are satisfactory. Carefully cleanse from weed seeds etc. Some dealers re-screen much of the grain received, and make a good profit by the improvement in quality. If good seed has not already been secured, select from the best growth before threshing, or procure it from reliable parties, and keep secure from vermin.

Hogs.—Commence feeding early, with refuse grain, bran, and unsound corn, and finish off with old corn if there be any on hand. Early made pork costs less and usually commands the best price. Keep the pens clean and well supplied with muck, weeds or straw, to absorb manure.

Manure-making and money-making are almost synonymous on old farms. Provide an abundant supply of muck for use in the stables and yards the coming winter. Secure the weeds, wild grass etc., from waste places, for the same purpose.

Plow at once for winter grain, if it be not already completed. Deepen the soil by going an inch below the last plowing. This can be done with less risk for winter grain, than with spring crops.

Potatoes not wanted for immediate marketing are better left in the ground as late as can be safely done without danger from frost. When dug they should be housed as soon as practicable, and not left exposed to the sun. A potato digger (see description of one in August *Agriculturist*) is well worth its cost to those who raise this crop on a large scale. After digging, plow under tops and weeds, unless the latter have ripened seed, in which case they should be gathered and burned.

Poultry that have had the range of grain fields, are in good condition for early fattening for market. Confine and feed them liberally, and allow plenty of water, with dust or ashes to wallow in. Promote the laying of hens that are shut up, by feeding with scraps of refuse meat.

Root Crops.—Keep the soil well stirred, and allow no weeds to interfere with their growth. If standing too thickly, thin, and feed the surplus to cattle.

Rye.—Sow after oats, or a second crop may be taken from the same ground, if the land is in good heart. Sow a little later than wheat. The white variety has proved excellent in this vicinity.

Sheep.—A small allowance of grain occasionally will bring them into good condition to winter well. Salt regularly and allow plenty of water. Examine to discover any signs of foot-rot, and if it appears, apply remedies promptly, and separate diseased sheep from the rest of the flock.

Soiling Crops.—Feed to stock as needed, or cure for winter fodder if pasture be abundant.

Sorghum.—Cut as soon as the seed is ripened, and press and boil immediately. Improved apparatus will pay in convenience, and in quality of the syrup. Experiment in making sugar with a small portion, by manufacturing before the seed has ripened. Remove the seed from all before grinding.

Timothy.—Sow with winter grain for meadow, or it may be sowed alone; in the latter case increase the quantity of seed. A top-dressing of fine manure, after covering the seed, will be beneficial.

Weeds.—Allow none to scatter their seed for next year's crop. Cut and burn—or add to the compost heap such as are not nearly ripe.

Wheat.—The earlier sowed has uniformly succeeded best in standing the exposure of Winter, and in escaping injury from the midge. Drilling, where practicable, is every way preferable to sowing broadcast. Wheat growers should notice the International Wheat Exhibition to be held at Rochester, September 8th, 9th, and 10th. Full particulars were given last month, page 236.

Orchard and Nursery.

The prospects are that the crop of fruit will be at best a moderate one, and the greater care should be taken in picking and marketing, and in drying and preserving any not otherwise disposed of. Those who send fruit to city markets, ought to know that it is sold almost entirely by its appearance. A lot of apples of indifferent quality, carefully picked and packed, will sell for more than a greatly superior fruit which has been beaten from the trees, and comes to market bearing evidence of carelessness in its preparation. Where the fruit runs unevenly, it is better to assort it, and make two qualities; a higher price for the whole will be realized. Let the quality of the fruit be uniform throughout the barrels or baskets. Those who practice the deception off topping off their packages with a few selected specimens, soon establish a bad reputation, and they get a lower price in the market. Barrels are now mostly examined through.

It requires some judgement to know just when to pick the early fruits, as there is but a short period between maturity and decay. Peaches and Fall pears especially, must be picked while still hard and able to bear carriage without bruising. Pick carefully, and avoid bruising in handling.

Budding is still in season with peach and other late growing trees. Look to those budded last month and loosen the bandages, if the growth of the stock has rendered them too tight. Where the buds have failed, the stock may be rebudded, if the bark still peels. Use well matured buds.

Drying Apples.—Well dried apples and peaches are likely to be in demand next season. Commence with the Autumn fruit; pare carefully and remove all the core; dry as rapidly as possible in order to get a bright light colored, saleable article.

Hoeing will still be required in the nursery rows. In running the plow or cultivator between the rows be careful not to injure the trees or roots.

Insects.—Those which are forming their cocoons and preparing their winter lodgings should be removed. If saw-dust is seen around a tree, search for the borer and follow him to the end of his hole with a wire or slender piece of whalebone.

Labels will be needed to mark trees sent out this Fall. Prepare a stock of these and of stakes during the season of comparative leisure.

Lands intended for Fall planting may be cleared up and prepared now by manuring and plowing.

Pits of peaches and plums may be buried in a hole, or placed in boxes of earth, for planting next Spring. Save from the fruit of healthy trees only.

Preserve a good supply of peaches, pears, plums, etc., in bottles or cans. See our previous volumes.

Pruning, if not finished last month, may be done now upon young trees, to form good, low heads.

Seeds of ornamental trees and shrubs should be gathered as fast as they ripen, and rightly labeled.

Seed Beds will need thorough weeding and copious watering, if the weather be dry.

Kitchen Garden.

The unusually hot weather, with frequent and copious rains have, in this vicinity at least, made a great "growing time." The crops not only grow with unusual vigor, but the weeds are forwarded with a rapidity almost appalling. The garden should at all times be kept free of weeds, and where the plants get too large to hoe conveniently, hand pulling must be resorted to. Now that the products of the garden are rapidly perfecting and crowding on in such profusion, care should be taken that nothing goes to waste. The surplus must be taken care of, and what can not be used should be either stored, marketed, or otherwise disposed of. Nothing should be left to decay, merely because there is an abundance. Every thing should be cleared up, and all refuse find its way to the hog pen, cattle yard, or compost heap.

Beans.—Pick the late string beans before they become tough, and salt or pickle as directed last month. Save the earliest Limas ripe for seed, and shell and dry the green ones for winter use.

Cabbages and Cauliflowers.—The late plantings will need frequent hoeings. Where it is desired to winter plants over in cold frames for planting in early spring, the seed may be sown this month.

Celery.—After the plants are 8 or 10 inches high, the earthing up should commence, and it will have to be repeated every ten days or two weeks according to the rapidity of the growth. It is an operation which should be carefully performed, a bungler by breaking the leaves and getting earth into the crowns of the plants, may thus spoil half the crop. Where the leaves spread much, it may be necessary to bring them together and tie them at the first earthing. If tied, it should be done with a slender piece of bass matting, or a string so weak that it will break away as the plant grows. The earthing up should be done when both plants and earth are quite dry.

Corn.—As soon as the early crops are gathered, cut up the stalks and cure them for the cattle or feed them out green. Save always the largest and finest for seed. Dry an abundance for winter use.

Cucumbers.—Select for seed as directed last month. If the weather is dry, water in order to prolong the fruiting season. Go over the vines every day and gather for pickles. Cucumbers that are ripe or nearly so, may be made into sweet pickles, according to note on page 247 (last month).

Endive.—Forward by hoeing and liquid manure. Tie up for blanching when the plants are dry.

Kale for wintering over may be sown this month.

Manures.—The supply for next year's use should now be accumulating. The compost heap should grow rapidly at this season.

Melons.—Pick as soon as ripe, which may be known by the stem readily parting from the melon by a well defined line, and coming off with a very gentle pull. Keep them from contact with the ground as directed in last month's Calendar. Secure seeds from the earliest and best flavored specimens.

Onions.—Pull as soon as the falling off the tops indicates that they are ripe. Seeds for sets may be planted early in the month.

Parsley sown early this month will form plants for next Spring. They may be kept over by means of a covering of straw or litter.

Pickles.—The garden now supplies an abundance of material for the pickles; cucumbers, tomatoes, peppers, beans, green melons, cauliflowers, nasturtiums, etc., should be gathered before toughening.

Seeds.—Much of the success of next year's garden will depend upon the careful and judicious saving of seeds this month. We have in former numbers spoken at length on this subject. Of biennials—like beet, parsnip, salsify, etc.—preserve the finest specimens for setting out to produce seed next Spring.

Spinach.—Make preparation for early greens next Spring, by sowing early this month. Thin out as soon as large enough, keeping the bed clear of weeds.

Squashes.—Clear off the vines after the crop of summer varieties is taken. The Marrow will soon be fit for use. The Hubbard may be used, and will be found good, even when quite green.

Tomatoes.—These are now in the greatest plenty. Bottle a full supply for winter use and make catsup.

Turnips should now be growing finely. Keep well hoed and thinned.

Weeds.—See that no seeds of these are saved for another crop. One plant pulled green, or burned if ripe, may save the labor of destroying thousands of weeds hereafter.

Winter Cherries.—Gather as they ripen and pre-

serve, or pack in cotton with the hulls on for winter. These are not as well appreciated as they should be. They are easily cultivated, and make a "sauce" but little inferior to strawberries.

Fruit Garden.

Here fruit is to be gathered, weeds to be exterminated, and preparation made for new beds.

Blackberries.—As soon as the fruit is off, the old canes are to be cut out. Remove the superfluous new shoots, leaving only one or two to each root for next year's fruiting.

Grapes.—The early varieties will be ripening this month. Pick for market with the greatest care, and handle by the stems only. Shallow boxes or crates are better than baskets for sending to market. See great Grape Exhibition announced elsewhere.

Raspberries.—Follow the directions given for Blackberries above, and also last month's Calendar.

Strawberries.—New beds may be made this month. Read article on page 241 August *Agriculturist.* Cut the runners from those cultivated in hills, remove weeds, and keep the soil loose.

Flower Garden and Lawn.

The borders should be bright with the gorgeous colors of the Autumn blooming flowers. These have not the tender beauty and delicate fragrance of our Spring favorites, but they come with a richness of bloom that accords with the season of ripeness and maturity. New grounds may now be laid out and prepared for Fall planting. Draining can be done and walks laid out at this season.

Bulbs.—The latter part of this month is the best time to set out bulbs for spring blooming. See article on page 275, for general directions.

Bedding Plants.—Those which it is desirable to preserve, such as Fuchsias, Lantanas, Geraniums, etc., may be taken up and potted preparatory to putting into a cool part of the green-house or the cellar, to remain during Winter.

Chrysanthemums need to be carefully staked. Cut out all weak shoots and a finer bloom will be the result. Pot for house blooming.

Cuttings.—Put out a good stock of Petunias, Verbenas, and other bedding plants for winter keeping.

Dahlias.—These are now in full bloom, and will require constant care to keep them from being injured by the winds. If any strong limbs are in danger of breaking, put down extra stakes and tie them. Cut off the flowers as soon as they have passed their prime, marking the choice hills.

Evergreens.—These may be planted this month, though with more risk than in Spring. See precautions in August *Agriculturist*, under Orchard.

Flower Pits.—Construct or repair and have ready for the reception of plants. Where there is no green-house, a great many tender plants may be safely carried through the winter in a cold frame.

Gravel Walks.—These are still liable to the intrusion of weeds, and need to be raked and rolled.

Lawns will still need an occasional mowing, and thin places may have a liberal sprinkling of seed. See article on Lawns on page 274.

Seeds.—Care should be observed in saving these from only the choicest flowers. Do not trust to memory, but label as soon as gathered. Hardy annuals, like Phlox, Larkspur, Clarkia, etc., may be sown now. With a little litter thrown over them, they survive the Winter and give an early bloom.

Verbenas and Petunias.—Layers and cuttings may still be made, and those already rooted may be potted off, to flower during the Winter season.

Weeds.—There must be no abatement of vigilance with these until the frost stops their growth.

Green and Hot-Houses.

If it has not been already done, no time should be lost in putting the houses in a perfect state of readiness to receive the plants. Painting, glazing, fumigating, and cleansing generally, should be done at once. The flues and hot water apparatus should be tested, and all necessary repairs made before the plants are brought in. Many of the tender things will require to be housed this month, and the paint should be hardened, and the dust and muss all over beforehand. Before the pots are brought in, they should be cleansed from dirt and moss, and the plants cut back into shape. All plants ought to be housed before the cool nights check their growth.

Air should be given freely every day, and the plants be gradually accustomed to the change from the open air to the confinement of the house.

Bulbs may be potted and kept in a cool place to be brought forward into bloom later in the season.

Camellias need repotting. Give frequent waterings while they are making their new growth.

Potting.—All the materials necessary for the Winter's potting, should be accumulated beforehand—pots, stakes, tags, leaf mold, loam and sand, all under cover and ready for immediate use. Many of the plants have become pot-bound during the Summer, and will need shifting. Those which were set in the borders, will probably need to have both root and branches cut back when potted. Give them shade and water after the operation.

Apiary in September.

Prepared by M. Quinby—By Request.

Bees having no poor neighbors around them, will not be apt to get into the despicable habit of robbing. It is not necessary that a hive should be nearly destitute of stores to make it poor; it may contain all the honey needed for two or three families, but if without bees to defend it, it is not rich. A rich hive contains both bees and honey in proper quantity. Bees have no better faculty than men to resist temptation. As long as they can attain all they want from flowers, they are content; but flowers fail now, and *poor* hives must suffer from the *rich.* The bee-keeper who is determined to keep about him a healthy tone of morals, will remove as far as practical, all temptations to evil. Remove the poor hives at once. Examine carefully to determine which they are....Do not put out any refuse honey. If you have such to feed, put it in a box and give it to some needy colony where others can not get it. New swarms strong enough to defend themselves, and yet not suitable for Winter, may stand until next month for the brood to hatch, before being taken. Old stocks containing foul brood, should be looked to now. There is great risk in letting them stand, because if robbed by colonies to be wintered, the seeds of disease are taken there for another year. Much mischief often results from neglecting this. The bees of such may be given to a queenless stock, if needed, but should not be introduced until they stand long enough after being driven out, to consume all the honey taken with them from the diseased hive. Some of the combs will be filled with the brood and honey mixed together, these should be cut out and buried entirely away from the bees. The healthy bees should not get a particle, unless scalded and skimmed. The top and side combs are usually clean, and may be strained out for use....The Italians so far, have proved almost exempt from this disease. Will not any one, having the Italians, in districts where it exists, watch this point, and report.... All honey in the surplus boxes, not sealed, is now taken below. If you would secure it, take it as soon as the flowers fail. To keep it from dripping out of the cells, turn the boxes right side up, as soon as the bees are out.

Exhibition Tables at the Office of the American Agriculturist.

The following articles have been placed upon our tables since our last report:

FRUITS—*Currants:* Versailles, Cherry, Red Grape, Short-Bunched Red, Prince Albert, White Grape, and Champagne, shown by E. Williams, Mont Clair, N. J. ....Red Provence, Red Angers, La Hative, Versailles, Cherry, Victoria, Glorie de Sablons, Champagne, White Grape, Golden Cherry Plum; A. S. Fuller, Brooklyn Nurseries, N. Y.... Missouri Black; Wm. F. Heins, Morrisania, N. Y....*Raspberries:* Improved Black Cap, Orange, Hudson River Antwerp; E. Williams, Mont Clair, N. J . .Catawissa; W. S. Carpenter, Rye, N. Y. ....*Blackberries:* New-Rochelle, new variety of pink color, also new black kind, from France; Wm. F. Heins, Morrisania, N. Y. ..Dorchester, New-Rochelle, and a new American Seedling; E. Williams, Mont Clair, N. J. ....*Gooseberries:* Lincolnshire, large; Jas. Hunt, Flatbush, N. J....American Seedling; E. Williams, Mont Clair, N. J ...*Apples:* Early Harvest; Alexander McDonald, Mt. Vernon, N. Y....Curious double apple; Jas. Brush, Brooklyn, N. Y....*Pears:* Osborn and Beurre Giffard; Wm. S. Carpenter, Rye, N. Y....*Figs* grown out-doors, very fine; Thomas Carnly, Washington Heights, N. Y....*Mulberries:* S. Tuttle, New-Haven, Conn....*Lemon*, very fine, one of 40 on same tree; Mrs. S. Craft, Glen Cove, N. Y.

FLOWERS, ETC.: Collection of Seedling Double Carnations, and Gladioluses, very fine; A. P. Cummings, Westchester Co., N. Y....Chinese Trumpet Lily; Alex. Marshall, Paterson, N. J....Plant of Lavender; Anton Strahm, Pearl-st., New-York....Bloom of Abranthus roseus; Wm. Allston, Brooklyn, N. Y....Dahlias; R. Cunnington, Brooklyn, N. Y.. Cut Roses and Dahlias; C. S. Pell, New-York Asylum....Larkspurs, Carnations, Gladioluses, and splendid Collection of seedling Phloxes; Wm. F. Heins, Morrisania, N. Y....Blooms of Magnolia Soulangiana; W. S. Carpenter, Rye, N. Y... Double Dahlia; Mr. Jacobs, Bergen, N. J .. Double Balsams; A. Edwards, Shrewsbury, N. J....Pigmy Marigolds; H. T. Haviland, Brooklyn, N. Y....Double Zinnia, Dr Peyton, New-York City. Cut Flowers; O. Judd, Flushing, N. Y....Splendid Collection of Gladioluses, 54 varieties; Andrew Bridgman, 878 Broadway, New-York.

VEGETABLES, ETC.: New species of Cucumber, white, and curious Tree Tomato; G. M. Usher, Port Richmond, N. Y....Long Blood Beet and Early Turnip; J. W. Perkins, Central Park Hospital, New-York City.... Cucumbers; Barney Williams, Bath, N. Y ...One bunch Tomatoes, weighing 9¼ lbs., Apple and Fig Tomatoes, and enormous growth of Martynea; Wm. F. Heins, Morrisania, N. Y....Mandrake; Israel Thornell, Metuchin N. J....Red and White Wheat, grown near St. Louis, Mo.

The Great Strawberry.

IMPORTANT EXPLANATIONS.

A number of persons appear not to have read carefully through what was said last month about distributing the wonderful New Strawberry. At least, so we judge from the tenor of many letters received. Owing to the absence of the Publisher, perhaps his intentions were not so fully explained as they might have been. To save writing letters, and to make the matter understood, we explain:

1.—As the New Strawberry (now called the "*Agriculturist Strawberry*,") appeared to far excel both in size and intrinsic value anything ever before produced, it was decided to purchase all the plants, to multiply them, and to distribute them *free* among the subscribers to the *Agriculturist* for the year 1864 (Volume 23).

2.—There were but few plants in existence; we bought all but one which is in the hands of an amateur friend, and we are cultivating and multiplying them with the greatest care. We can not spare one *this* year for love or money. A hundred dollars for one plant have been offered by some cultivators who would like to get up a stock for sale, as they would bring a high price. We intend to keep them out of market, and distribute them *free.* Each plant will, perhaps, on the average, produce, 200 others for distribution next year. The Green-House will be brought into requisition as soon as the out-door multiplication ceases. So, then, the many who earnestly solicit "just one plant now," will see why we can not grant the favor and excuse us from writing them in reply.

3.—As some *plan* of distribution is necessary, we adopt the following: The plants will be sent to *all* paying subscribers for 1864 (including exchanges), if we can produce enough, and if there be not enough, then as far as they go, beginning in order with the first who pay in their subscriptions for 1864. (*Exception.*—Some have sent in their applications, saying they intended to subscribe. As the matter was not definitely understood last month, we have entered these names in order, on a separate list, and when the subscriptions come in, we will check off the names for the plants, if the subscribers will refer us to their application, giving about the date. Those applying whose subscriptions already extend into 1864, are entered for the plants.) HEREAFTER, to avoid trouble and mistakes, and to save much extra labor, we must ask that the *application for plants come along with the subscription for* 1864. We do not desire to hurry up renewals, though every name now booked up for next year, by so much diminishes the severe labors of December and January, when the great bulk of subscriptions are generally received. We hope to have at least one plant for every subscriber, but can not promise them positively, and therefore adopt the rule of "first come, first served."

4.—No difference is made between single subscribers, club subscribers, or those coming on premium lists, or from Agricultural Societies. The plants are designed for all regular (paid up) subscribers alike. Voluntary agents or dealers can have the plants for their customers, on the same terms as others, that is, when *we* receive the subscription price for 1864. We can not supply plants to those who buy only by the single number, as any copy taken thus may be the last one.

ABOUT THE FIVE CENTS.—The purchase, cultivation, and distribution of the plants will cost **$3000,**

or more, *besides* postage and packing material. The smallest parcel will require at least three cents worth of oil cloth, and two cents for postage. This five cents is a trifle for each, while if we paid it, it would amount to several thousands of dollars. Our paper is too low priced to afford profit for so much extra expense. It is a matter of necessity, therefore, to ask each one desiring the plants to enclose *five cents* for packing material and postage.

If this New Strawberry turns out as well as it promises, and as well as every one who has seen it believes it will, it will be a magnificent acquisition to the country, and the subscribers receiving the plants will get the first benefit at very trifling cost or risk, while the whole country will soon be supplied, at a cheap rate. Had we not secured them, they would have been offered at a dollar or more each, and thousands of persons would have paid $5 to $10 a dozen before they became generally disseminated. Indeed we could to-day sell our plants for **$3000** cash.

Great American

Grape Exhibition.

THE NEW-YORK FRUIT GROWERS at their meeting, August 13, decided to hold a Public Exhibition devoted entirely to *Grapes*, at the *Agriculturist* Rooms, 41 Park-Row, on **October 1st, 2nd, and 3rd.**

The following gentlemen were appointed a Committee of Arrangements: Peter B. Mead, Esq., Ed. Horticulturist; R. G. Pardee, Esq.; Dr. I. M. Ward; Wm. S. Carpenter, Esq.; A. S. Fuller, Esq.; and Dr. C. W. Grant. The Committee report as follows:

PRIZES.

NATIVE GRAPES.

A.—Best Native Seedling Grape that has never taken a prize—of superior quality, and ripening in open ground not later than Sept. 20th.—Satisfactory proof of time of ripening to be furnished..... $10
B.—For the Best Collection of Native Grapes, (amount and quality both considered,) not less than 12 kinds, 5 bunches of each..... 10
C.—For Second do do do 5
D.—For Best Six Varieties, 5 bunches of each..... 4
E.—Second do do do 2
F.—For Best Four Varieties, 5 bunches of each.... 3
G.—For Second do do do 2
H.—For the Best 5 bunches of Native Grapes of any kind, quality to rule..... 2
I. —For the Best 5 bunches of Delaware..... 2
J. —For the Best 5 bunches of Diana..... 2
K.—For the Best 5 bunches of Catawba..... 2
L.—For the Best 5 bunches of Isabella..... 2
M.—For the Best 5 bunches of Concord..... 2
N.—For the Best 5 bunches of Hartford Prolific.. 2
O.—For the Best 5 bunches of Herbemont 2
P.—For the Best 5 bunches of Elsingburgh..... 2
Q.—For the Best 5 bunches of Creveling. 2
R.—For the Best 5 bunches of Union Village..... 2
S.—For the Best 5 bunches of Anna..... 2
T.—For the Best 5 bunches of Allen's Hybrid..... 2
U.—For the Heaviest bunch of any kind..... 2

FOREIGN GRAPES.

V.—Best Six varieties, 2 bunches each 5
W.—Second do do 3
X.—Best 2 bunches Black Hamburgh..... 1
Y.—Best 2 bunches Muscat of Alexandria..... 1
Z.—Best 2 bunches Grizzly Frontignan..... 1
aa.—Best 2 bunches of any other kind..... 1
bb.—Other Special Prizes to be awarded by the Judges, for extra specimens not included anywhere above.

REGULATIONS.—1. The Judges will be requested to test specimens by actual taste, and to make all other points subordinate to that of quality, except in Prize U. They will disqualify all lots not meeting the terms of the schedule, including the number of bunches called for (except in prizes B and C.). All bunches above the required number must be laid aside until after the judges have given in their decision, when the exhibitors may add to their specimens at their pleasure.

2.—Exhibitors should give at least 3 days' notice of the space required, that room may be provided for them.

3.—All specimens to be on the tables by 11 o'clock A.M. Thursday, Oct. 1st. The Judges will have exclusive use of the rooms from 12 to 2 o'clock, after which the public will be admitted. After the awards, the Prize specimens will be labeled. Exhibitors may then put on their specimens their cards, place of business, etc. No fruit will be removed before 4½ o'clock P. M., Saturday, without special permit. The fruit of course will belong to the several exhibitors, at the close of the Exhibition.

On behalf of the Committee,
PETER B. MEAD, *Chairman.*

The above report was presented and adopted at the Fruit Growers' Meeting, Aug. 20, and appointment made of the following excellent committee of

JUDGES FOR THE GRAPE EXHIBITION.

HON. MARSHALL P. WILDER, Dorchester, Mass.
CHARLES DOWNING, Esq., Newburgh, N. Y.
JOHN E. MOTTIER, Esq., Cincinnati, Ohio.
A. W. HARRISON, Esq., Philadelphia, Pa.
DR. J. B. CHAPIN, Providence, R. I.
T. T. LYON, Esq. Plymouth, Mich.
JOHN DAILLEDOUZE, Esq., Flatbush, L. I.
ISAAC BUCHANAN, Esq., New-York City.

Containing a great variety of Items, including many good Hints and Suggestions which we give here in small type and condensed form, for want of space elsewhere.

Mailing Strawberry Plants due for Premiums.—These will be mailed soon after Sept. 1st. (The dry season prevented an earlier development of well rooted plants). The Triomphe de Gand will be sent where the Bartlett or Austin have not been specially called for. As soon as they arrive, remove the covering, and bury the roots in moist earth, if not ready to plant at once. (See directions for culture in August *Agriculturist*, page 241). Let the soil be made mellow and deep, and contain plenty of black earth, or woods mold, or well rotted manure. Spread out the roots well; set so that on settling the crowns will be fully as high as the general surface with no dirt on the central leaves; water only as needed—not drowning them; put a little rotten manure around each plant, and water through this, which will work in some of it, and stimulate the plants to active growth. All this, if the best results are desired. Rich manure in Spring promotes rapid growth of plants at the expense of fruit. With care in planting and a good autumn season, quite a number of new plants may grow, ready for spring planting. If set well apart, and well treated, 10 plants set now ought to produce at least 500 by next August. We could easily make 1000.

The Fruit Growers' Meetings, which were partially interrupted by hot weather, by the mob excitement, etc., are again in active operation. It will pay to drop in at 41 Park Row, on Thursdays, at 1 P. M.

The Great Grape Exhibition announced in another column is worthy of attention. The show will doubtless be one of the best, if not the best ever seen in this country.

The Premium Grape Vines, Due, can not be mailed until the new wood ripens, several weeks hence. The time of sending will be announced.

Fine Show of Gladiolus.—Our exhibition tables are blooming like a garden, with a splendid collection of over 50 varieties of gladiolus from the grounds of A. Bridgeman, 878 Broadway. The colors range from pure white with purple markings, to deep scarlet. We have never seen a finer collection. The gladiolus is one of the most desirable ornaments of the garden; it blooms in midsummer, and continues to flower until late in the season. Most of the sorts are hardy, and the bulbs only need taking up to divide them.

A Supplement to Ure's Dictionary of Arts, Manufactures, and Mines.—New-York: D. Appleton & Co. Ure's Dictionary has long been a useful hand-book of reference to those having an interest in the subjects on which it treats. This supplement, edited by Robert Hunt, and comprising contributions from numerous well-known authors, is a valuable work. It gives an exposition of all the latest improvements in manufactures, and embodies a mass of information not to be found elsewhere. Messrs. Appleton & Co. are issuing several scientific works of a high order; they will receive the thanks of all lovers of good books.

Flowers for the Parlor and Garden, by Edward Sprague Rand jr., Boston, J. E. Tilton & Co. We have a natural antipathy to works in which the chapters are headed by a poetical quotation. We confess that we opened this book with a prejudice against it, but we have given it a careful perusal, and must say that it contains much useful information for the amateur cultivator. There are some errors in botanical nomenclature which are evidently oversights, and should be corrected in another edition. The work is beautifully executed, and is not dear at the price, $2.50. We shall place it on our book list.

A Good "Notice."—We do not feel at liberty to occupy much space in printing the good things said concerning this Journal by other Journals, and by our readers in their letters. It may gratify the members of the great *Agriculturist* family, however, to state that thousands of kind and appreciating notices appear every year, in which the merits of this paper are spoken of in the highest terms. We are gratified by such expressions of appreciation, and are thus stimulated to greater exertions. We give one example from a recent number of the "*Medical and Surgical Reporter*," of Philadelphia, one of the best and most widely circulated weekly Medical Journals in the world. Praise from such a source is truly worth having. The Reporter says:—"The *American Agriculturist*, published by ORANGE JUDD in New-York, is one of the best and most *practical*, as it is the cheapest paper issued for the use of agriculturists. As many of our readers are, to a greater or less extent, agriculturists and horticulturists, we unhesitatingly recommend it to their notice. The *Agriculturist* is an uncompromising opponent of quackery in medicine, refusing to advertise for quacks at any price, and devoting much space to a practical exposure of their tricks. Each number contains something to amuse and instruct children as well as grown persons. The price is but one dollar a year, and *each number is worth the money.*"

Fine Wool and Sheep Husbandry.—A work bearing this title is just being issued by C. M. Saxton. It consists of an essay by Henry S. Randall, L. L. D., read before the New-York State Agricultural Society, Feb. 12, 1862, and contains sundry matters of interest to breeders of fine sheep. A large part of the work is occupied with the history of different importations into this country, and a comparison of the values of the several breeds of fine-wooled sheep. It also contains practical suggestions upon the breeding and management of sheep. We can send it post-paid upon receipt of the price, 75c.

New Use for the Wringer.—Geo. M. Usher, of Port Richmond, informs us that he finds the Clothes-Wringer of great use in squeezing the juice from currants. The fruit is put into a bag, without being stemmed, and the whole is passed between the rollers of the Wringer. Mr. U. says he can thus make a barrel of juice as soon as he could a gallon in the ordinary manner.

The Barometer and the Church Bell.—Rev. B. F. Sharp, Geauga Co., O., last year secured a premium barometer by obtaining subscribers to the *Agriculturist*. He writes that it has proved entirely satisfactory to himself, and of no little benefit to his neighbors. During haying and harvest, when the instrument indicated approaching rain, he notified his parishioners by ringing the church bell. One of them informed him that he saved five loads of hay in one day, by attending to the warning thus given

Poisoning by Mercury Vine.—"W. T. P.," Monmouth Co., N. J. If you will tell us what the "Mercury Vine" is, we may publish the recipe. Is it the Poison Ivy described on another page?

Corn Blossoms.—City Subscriber, N. Y. If you read the Boys and Girls' Garden for this month you will better understand our answer. The Tassel is a collection of *staminate* flowers; the Ear a great number of *pistillate* ones. The silk of the corn is the long pistils, each thread of which comes from a pistillate flower that, after receiving the pollen from the tassel above, becomes a kernel. The staminate flower is much like the oat flower figured in the lesson. The structure of the pistillate flower is a little difficult to explain to one who is not a botanical student. You must take our word that it is so.

Fruit Notes.—Isaac Hicks, an experienced fruit grower in Queens Co., L. I., sends us the following:

PRIMATE APPLE.—We have had this superior summer apple several years under the name of Tart Bough. It was introduced from the vicinity of Syracuse, is nearly as early as the Harvest, and a much better grower, and more productive and valuable. It is very tender and juicy, and ripens gradually on the trees, so that it is in use three or four weeks.

CHERRIES.—Gov. Wood is the finest cherry we have yet tested, of about 30 varieties. All our Early Richmond and others of that class are nearly destroyed by the knot. Cutting off the knots as soon as they appear will prevent the spread of the disease if all your neighbors will pursue that plan, but if not, the labor is in vain.

DORCHESTER BLACKBERRY.—Of little value compared with New-Rochelle—thrown away after two years' trial.

STRAWBERRIES.—It is time the attention of the public was turned more to the *flavor* of this fruit, for any person that visited the Show at the *Agriculturist* office must be convinced that we have produced berries large enough. A strawberry that is rich and sweet enough without sugar, and of course productive too, is what we want now. Friend Fuller has succeeded in producing a seedling that approaches the mark, and Wm. E. Burgess, has a new variety that is very near what I desire, and can safely recommend, after visiting the grounds of the gentlemen above named in strawberry time, these seedlings to those who prefer flavor to size alone. We thought they were the best of the many varieties we tasted, and thrifty and productive also.

GRAPES.—Pick off one half of your Hartford Prolific grapes, and they will be more than twice the better for it

Mummy Wheat.—J. M. Shaw, of Lee Co., Ill., sends us a sample of wheat "said to have originated from that found with an Egyptian mummy some years ago," and asks what are its qualities. We have not the least confidence in the mummy story; it is one of the popular errors. The wheat sent, has a remarkably long and black beard. The head is short, but well filled. The grain is plump, but from inspection merely, we should not think it would make the best quality of flour. We have no knowledge of this variety, and should be very glad if Mr. S. can answer his questions from experience.

Chewing Tobacco.—We have had numerous inquiries as to the method of converting leaf tobacco into the manufactured or chewing tobacco, but can give no positive information on the subject. We only know, in a general way, that the tobacco is sprinkled with water sweetened with molasses or liquorice, and sometimes flavored with vanilla or some other aromatic. It is then rolled into balls and submitted to strong pressure, which forms it into cakes. The manufacturing is usually done on a large scale by those who buy the leaf, and make a business of it, the same as with cotton or wool.

What is Muck?—City Farmer, Buffalo, N. Y., says that we often mention the use of muck, and he confesses that he does not know what it is. If we were to call it swamp mud, perhaps he would know it. It is the deposit found in low swampy places where partly decomposed vegetable matter has been accumulating for ages. When dug out and exposed to the air, it partially dries and becomes a valuable absorbent of gases from manure, and is of itself an excellent manure from the large amount of vegetable matter it contains. There are few farms of any extent that have not deposits of muck or black earth at some point.

Sex of Eggs.—Charles H. Grower, of Long Island, says in reference to Mr. Genin's plan for determining the sex of eggs (given in the June *Agriculturist*), that wishing to have a number of cocks, he put a dozen eggs with rough ends under a hen, and two males and seven females were hatched out. Seeing it stated in Bements' American Poulterer, that if the air bubble is in the centre of the end of the egg, a male bird would be produced, and if slightly at one side the egg would give a female, he tried 15 eggs selected as male, and the result was 7 males and 6 females.

Canada Thistle.—The Legislature of Pennsylvania in 1862 passed a law requiring owners or occupiers of lands on which Canada Thistle may be growing, to cut the same, so as to prevent it from going to seed, and the seed from ripening, under a penalty of $15; and providing further, that if any such person shall neglect or refuse, after receiving five days' notice in writing, to cut and destroy such thistles, it shall be lawful for any person aggrieved, or believing themselves about to be injured thereby, to enter on such lands, and cut and destroy such thistles, and recover compensation therefor from such owner or occupier, at the rate of $2 per day. A similar law was recently enacted in Michigan.

How Can I Destroy Horse-radish? asks F. M. Abury, Washington Co., Pa. We know of no other way than to actually dig it out. The ground must be spaded up and forked over at least two spades deep, and all the roots, even to the smallest particles picked out. It is a difficult task, but we have successfully accomplished it. Horse-radish should never be planted except where it can remain permanently.

Yellow Daisy.—M. R. Campbell, Columbiana Co., Ohio. We do not know what plant you refer to. Send us a specimen.

Kerosene on Plum Trees.—In the February number of the *Agriculturist* we published a note from M. A. P. Richardson, of Norfolk Co., Mass., to the effect that he had kept his trees free from curculio by the use of kerosene oil applied to a band of cotton surrounding the tree. We have had several letters from those who have tried it and *killed* their trees. We published this as we do other items which come to us apparently in good faith. We cannot try every recipe and experiment ourselves. We deeply regret that any trees have been destroyed by what would seem to be a safe application. We shall be glad to hear if Mr. Richardson continues the practice with safety, and if he can account for its success with him and its disastrous effects in other places.

Tree Peddlers.—W. W. Beck, writing from Montgomery Co., Ind., says all we have written of itinerant tree venders is true. His neighbors have patronized them, and generally lost half their trees—in some cases all of them. He ordered and paid for one standard pear and two apple trees. The pear proved a poor, forked dwarf, and the apples were not the variety ordered.

Shade Trees Free from Span Worms.—I. C., Brooklyn, L. I. Few trees, save the Ailanthus, are exempt from worms, in badly infested localities like yours. On account of this freedom, and its rapid growth, even in poor soil, we often advise planting the Ailanthus along the streets of cities. The Sweet Gum (Liquid amber) is a pretty tree, on rich soil, and tolerably free from worms. The Linden is one of the worst preyed upon, and the Elm and Maple come next.

Gang Plows.—A. D. Henry, Lycoming Co., Pa. Gang plows of various patterns are in use in different sections of the country, particularly at the West, but they are not as common as we think they might be with advantage. Perhaps some modification in the present construction is needed to make them satisfactory. We are not prepared to name the best. Hildreth's is a good one, though not having seen it advertised recently, we cannot say where it is manufactured or for sale.

Hubbard Squash.—John A. Allen, St. Louis Co., Mo., has had much trouble from the destruction of the flowers of his vines by the squash-bug. The only remedy we can suggest is to begin early in the season, and look over the vines every day and destroy the insects. By killing those which come early, before they lay their eggs, much may be gained. The eggs are deposited on the under side of the leaves: these and the young insects, and in fact those in every stage of growth must be crushed. We know of no preparation or application which will keep them off.

Treatment of Raspberries.—T. W. Kingsbury, Pike Co., Ill., forks in a good dressing of manure in the Spring, and when the fruit begins to ripen he cuts the new shoots back to let the sun in, and also to induce side branches. The canes are in hills, four together, tied to a single stake. As soon as the fruiting is over, he cuts out all the old canes and the weak growth of the new, and forks in more manure. By this method he gets strong shoots for fruiting the following year.

Preserving Figs.—C. Pell, Wayne Co., N. Y. In the South of Europe the figs are simply dried in the sun, or, in wet seasons, in a heated room. They are turned frequently to insure equal drying. You think fresh figs insipid; we do not. The taste for them is partly an acquired one like that for tomatoes. We should like to breakfast with you if you could give us fresh figs and cream,—you would not be troubled to dry them.

Hardiness of Plants.—John Walling, Clinton Co., Mich. The *Catalpa* is barely hardy here, and will probably not stand your winter. It depends upon the sort of magnolia you plant, whether it will endure. *Magnolia acuminata* and *glauca* may stand, and though we should not like to insure them, they are worth trying. It is impossible to predict about plants without actual experience. We have seen the Southern Cypress quite hardy in your State, while plants which naturally grow much farther north were killed. Clematis Virginiana grows wild in Michigan, and is hardy.

The Wistaria.—"J. W. R.," Bath—(State not given.) If in Maine, the Winter is too cold in your locality. Try laying down the vine next Fall, and covering it with some litter and a few inches of earth.

Two Very Long Iron Bars!—We write this item in Central Iowa, at Grinnell, the farthest point west to which the Mississippi and Missouri Railroad is yet completed. Before our window lie two parallel heavy bars of iron, the ends meeting other bars eastward in *one continuous line* all the way to New-York City—over the prairies, through cities, winding among the hills, and crossing rivers on substantial bridges. A car loaded with the products of these fertile prairies can go through to the great Metropolis on the Atlantic, *without being broken in bulk*. We can step on board, and in 51 or 52 hours, traverse the whole distance, of **1196** miles! We occupied two weeks in coming here, as we made frequent digressions, but always returning to the main route. Here is the route: From Grinnell to Davenport, by the Mississippi and Missouri R. R., 120 miles; thence by the Chicago and Rock Island R. R. to Chicago, 182 miles; thence by the Pittsburgh, Fort Wayne, and Chicago R. R., to Pittsburg, 468 miles; thence by the Pennsylvania Central R. R. to Harrisburg, 249 miles; thence by the Lebanon Valley, the Eastern Pennsylvania, and the New-Jersey Central Railroads, to New-York City, 177 miles. All these roads join so as to form a continuous line, and the trains connect, so that if in haste, one need not stop night or day, except to eat, for which time is allowed at suitable intervals. Commodious sleeping cars are provided in the trains running at night, and we have found a very commendable effort, on the part of all employed in running the trains, to make their passengers comfortable. It is worth a trip over this route to see the broad country on the way, and to see and enjoy these magnificent prairies. Thanks to the skill, and enterprise, which laid down these *two very long iron bars!*

Keeping Grapes.—S. Mitchell, of Steuben Co., N. Y., gives in the Rural New-Yorker his experience with several modes of packing Isabella grapes. They were all put in boxes one foot square and six inches deep, to admit three layers of clusters, and kept in a cool, dry cellar, so cool that water froze. Those packed in colored sheet-wadding—a layer of grapes, then wadding—kept tolerably well until the middle of December, when they began to rot and mould. Others packed in fresh-grape-leaves kept nice and plump until the last of December, improving in the meantime. They then began to mould badly. The best results were with grapes packed between alternate layers of newspapers. By changing the papers and repacking he kept grapes plump and fresh until used up March 15th.

Hybridizing Strawberries.—G. Pillsbury, Rockingham Co., N. H. This operation, which should properly be called crossing, is performed by cutting out the stamens of the flower to be fertilized, as soon as it opens, and then applying the pollen from the flower with which you wish to cross, by means of a camel's-hair pencil. If not familiar with the structure of flowers, the Boys and Girls' Garden for July will explain.

Mulching Strawberries.—W. H. Morgan, Harford Co., Md. The winter covering of strawberries should not be more than one or two inches thick over the crowns of the plants. Perhaps with you a very thin covering would answer as a protection against sudden changes of temperature. This Fall covering is designed not only to protect the plants during Winter, but to keep the ground around the roots moist during the Spring drouths, and also to keep the fruit clean and the weeds down. Forest leaves answer an excellent purpose as a winter protection, and we have known tan-bark, saw-dust, and shavings from a planing-mill, to be used with good results. The last-mentioned articles are disposed to pack closely, and should be put very thinly over the crowns of the plants. Strawberries do not so much need protection from the severity of Winter as they do from frequent freezing and thawing.

Cobœa Scandens.—Jos. Marsh, Wis. This is grown as an annual, but it is a perennial in the green house. You will be more apt to get flowers by starting new plants than by any treatment of the old ones.

Mushrooms.—J. Wickersham, Ind., is referred to the Sept. *Agriculturist*, 1861, for full directions for cultivation. The spawn may be had at the seed stores.

Stuffing Birds.—"Ignoramus" will find a brief article in the *Agriculturist* for October, 1862. The skinning is not difficult, but the setting up depends upon one's natural taste and eye for form. He can learn more from seeing an experienced taxidermist work a few hours than he can from any printed directions.

International Wheat Show.—We again call attention to the International Wheat Show, to be held at Rochester, N. Y., Sept. 8, 9, and 10th, at which samples from any part of the world will be admitted for competition. The large premium list, amounting to five hundred and forty dollars, is well worthy the attention of wheat growers. As there will also be an opportunity of selling good wheat at extra prices for seed, the inducements to contribute to the exhibition are in themselves sufficient to warrant a large show, aside from the fact that the interest of farmers generally will be greatly promoted by a comparison of the different varieties of wheat, and the selection of that best adapted for culture in the United States.

Fair of the American Institute.—The Thirty-fifth Annual Exhibition of this Institution is announced to be held at the Academy of Music in this City, commencing Sept. 3d, and to continue three weeks. A Horticultural Exhibition is to be had in connection with the general Fair, during the last week. Articles of every kind are admitted, provided they are of American manufacture. Inventors and manufacturers have an opportu-

nity at this gathering, of exhibiting their wares to very large numbers of visitors, and they usually avail themselves very largely of the facilities offered, so that in general the show is well worthy a visit.

Brakes in Pastures.—C. Crocket, Penobscot Co., Me., and several other subscribers. We know of no other way of getting rid of brakes, short of grubbing them up. The long root-stocks or underground stems are very indestructible; we have turned them up after they had been plowed under for several years, and they seemed to be as sound as ever. Drainage would doubtless render the land less suitable for them. There are but few ways in which any particular plants can be killed. The land can be rendered uncongenial as regards moisture; they can be crowded out by cultivated crops; they can be exhausted by repeated mowings, and they may be grubbed up root and branch. Besides this, thistles and burdock may be poisoned with salt. This is the extent of our present knowledge about exterminating particular plants. If our readers have any facts on the subject, we should be glad to learn them.

Marble Dust as a Fertilizer.—Wm. C. Chipman, Barnstable Co., Mass., and others.—Limestone, marble, and chalk are alike in composition, for they are each composed of lime and carbonic acid. The main difference in composition is the presence of a very small quantity of iron, or other metal, which darkens the limestone, and shades some beds of marble. The compactness, the degree of crystallization, and other causes, give a different physical appearance to the three forms of carbonate of lime. Burn limestone, marble, or chalk, to drive off the carbonic acid, and in each case you have caustic lime remaining. Grind or pulverize them, and in each case you have a powder which is chiefly carbonate of lime. On some soils entirely deficient in lime, the unburned powder may be beneficial, but we suspect not greatly so, from the fact that on soils filled with limestone, and even partly made up of the detritus of limestone, good results are derived from burning a part of the limestone, and applying it in this state to the soil. The expulsion of the carbonic acid leaves the caustic lime in a state to act more energetically as a neutralizer of acids in the soil, and as a decomposer of organic materials to fit them for plant food. The fact that air-slaked-lime, which is in a measure re-carbonated, is somewhat beneficial, would indicate that *very finely* powdered limestone, or marble, or chalk, should be of some value, though its comminution is infinitely less than when disintegrated by fire. Marble dust may be used on heavy soils as an ameliorator to change the physical condition, and to ultimately affect the chemical constitution.

Lambert or Weevil-proof Wheat.—Jos. Henderson, Mifflin Co., Pa., writes to the *Agriculturist* that this variety of wheat, which has been highly extolled in some quarters, has proved very inferior in his locality. Four years since, he and several neighbors procured and sowed 80 bushels. The heads were short and loose, and where the straw appeared as heavy as the Lancaster Bearded variety which stood beside it, the yield was at least one-third less. The latter kind is almost the only wheat now sown in that section.

Stock for the Michigan Agricultural College.—We were recently gratified by a short visit from our friend Dr. M. Miles, the Professor of Zoology, etc., in the above institution. He has been among the celebrated herds of the Eastern breeders, purchasing stock for the farm of the College. He purchased from Samuel Thorn, Esq., of Thorndale, the short-horn bull Fatalist and the cow Dielytra, and from F. M. Rotch, Esq., Otsego Co., N. Y., the short-horn heifer Haze. Also the following Devons from the herd of E. G. Failes, Esq., West Farms, N. Y.: the bull Cherokee and the heifers Zuleika 2d and Eveleen 5th. We are glad to learn that such valuable stock has been acquired by this College, an institution which has every element of success except the *hearty* appreciation of the farmers of Michigan, and this we bespeak for it.

Insects.—"J. T.," of Southport, Conn., sends us an insect which he says cuts off the leaves of his fig-trees. The insect is one of the Tree-Hoppers, and judging from the rather imperfect specimens, is not a species common about here. We think that the leaves must be eaten off by something else, as these insects live entirely by sucking the juices of leaves and tender twigs. The young insects live in the ground, upon the tender roots of the tree, and it is in this state that they do the most damage. No remedy has been proposed, to our knowledge. ....John Chislett, of Alleghany County, Pennsylvania. The insects were, as you supposed, the too common Rose Bug. As the eggs are laid in the ground and the grub subsists there until it comes out a perfect beetle, there is no time at which it can be successfully fought, save in its perfect state. Jarring them from the trees on to sheets and then destroying them, is the only feasible remedy we have seen proposed. If half the insects destroyed in this way are females, the crop for the next year will be much diminished. Birds destroy many of them, and they are devoured by fowls as they are about to enter the earth to deposit their eggs....The specimens from A. L. Child, Cass Co., Neb., were *Doryphora decemlineata*, or the Ten-striped Spearman. It is a beetle which has of late become very troublesome in Iowa, Nebraska, and other far-Western States. They are particularly fond of the potato and tomato, but in the absence of these will devour any green thing. The eggs are of a red color and are laid upon the leaf, and the sluggish grubs which come from them, eat with great avidity. Several generations are produced in a season. The grub undergoes its transformation in the ground, and comes out a perfect beetle, about half an inch long and about as broad, of a pale yellow, with 10 black lines on the wing-covers. The principal damage is by the larvæ. Mr. C. finds that by hand-picking he is able, with great labor, to reduce their number. We as yet know of no other way to treat them.

Insects on Wheat.—John McKibben, Walworth Co., Wis., M. H. Taylor, Walworth Co., Wis., and W. E. Abbs, Fon du Lac Co., Wis. The insects forwarded are the grain aphis, which appeared in countless numbers upon grain, especially oats, in many of the northern States, last year. They do considerable injury by sucking the sap of the plant and making the grain shrivel. This year they do not appear to be as abundant. We know of no means to prevent their ravages. They have several natural enemies to keep them in check, the principal one of which is the small insect known as the lady bug, or lady bird (*coccinella.*)

Lice on Cattle, etc.—Demarest, of Essex Co., N. J., finds that the "Insect Powder" commonly sold, destroys lice on cattle. He rubs it along the back of the animal and works it down to the skin, and in the same way on the head and face. It is also good for fleas on dogs, and to keep lice away from setting hens; for the latter purpose he sprinkles it over the nest several times during the period of setting. This powder, which was formerly put up by some parties as a secret article, is now for sale in bulk at the drug-stores. It is mainly, if not wholly, the powdered leaves of a European species of Pyrethrum.

Slobbering in Horses.—Francis E. Rumford, Newcastle Co., Del., writes to the *Agriculturist*, that cabbage leaves fed to horses occasionally, with a little salt, will remedy slobbering.

Hardiness of Apple Trees in Illinois.—"J. H." writes us from Washington Co., Ill., that of an orchard of 3500 trees set out in 1859 and '60 he found about 600 damaged by frost. Perpendicular cracks, 1 to 3 inches long, appeared at the base of the trees, and some of them had three or four of these cracks, and the bark apparently dead for ten inches above the ground. He hilled up the dirt to the hight of 12 to 18 inches around each of the diseased trees and, by the middle of July, new bark had formed under the old, and by this treatment he saved all but some 50 or 60 of the affected trees. The varieties which suffered most were Prior's Red, Roxbury Russet, and Caroline Red, the latter being injured badly. Rawles' Jannet, Summer Queen, Fall Pippin, and Wine Sap were slightly injured, and Red June, Early Harvest and New-York Pippin were all sound.

Pears which Rot at the Core.—Mr. H. Morgan, Harford Co., Md., asks if there is any remedy for pears which become "mushy" while they are fair outside. This is one of the faults of otherwise good pears and there is no help for it. Better graft the trees over with sorts which are free from this bad habit.

Crops and Things in Decatur Co., Indiana.—John W. Smith says: It has not been so dry here for several previous years. Our wheat crop was good; our corn would make a pretty fair crop if it had rain; our oats were very good; our early potatoes are good but late ones are poor; peaches and apples are plenty; no quarreling among neighbors; our Union men are in the best of spirits; our Copperheads down in the mouth; our ladies industrious and—pretty of course.

Soap Suds for Blackberries.—L. Farnesworth, Ashland Co., O., writes to the *Agriculturist* that last season Lawton blackberries were almost worthless from a severe drouth occurring as they were about maturing. This year drouth occurred again in that vicinity, but he gave the blackberries the suds left after washing every week, and the yield was superior to any thing of the kind he had ever before seen.

Fuller's Seedlings.—C. Saunders, Mo., asks our opinion of the Col. Ellsworth and Monitor Strawberries, as he saw they were not noticed at our exhibition. These berries had already been exhibited at two shows, and Mr. F. having other new sorts, did not care to bring in the above varieties. The vines are all devoted to making plants, and are not allowed to fruit.

"Minnesota Flax."—Richard Chute, Minn., sends us a sample of a fibre with the above name, the product of a native plant which we cannot name, without leaves and flowers. The fibre is quite fine and strong. We have no means of judging of its market value. That probably could not be told until its value had been tested. The sample given to a party interested.

Plants for Names.—L. H. Andrews, Marshall Co., Ind. *Commelyna Virginica*, which may be called Virginian Day-flower, for a popular name. Also *Hypericum prolificum*, Shrubby St. John's Wort—a fine plant, and worth cultivating.....Mrs. S. B. Morris, Portage Co., Ohio. The plant, as near as can be judged from the specimen, is *Neirembergia gracilis*, a good bedding and house plant. The "Flowering Maple" she asks about is probably the *Abutilon*, figured on another page. ....J. H. Ferguson, Rensselaer Co., N. Y. The plant sent is the Trumpet Creeper, *Tecoma radicans*, (called *Bignonia* in the catalogues.) It is one of our most beautiful climbers, and is a native of Pennsylvania and southward. It is quite hardy around New-York. The specimen came in perfect order, being nicely packed in a tin case. ....J. G. Foster, Riley Co., Kansas. The specimen is *Ipomæa leptophylla*. As it is not generally known, it has no common name. It might be called Willow-leaved Morning-Glory. It is a perennial species of Morning-Glory with a large fleshy root. We should be glad of a few seeds....G. Hurd (place not given) sends *Similax Pseudo-China*, a species of China Brier.

Lemon Buds.—J. C. Laing, Tuscola Co., Mich. You can get them of almost any good florist. Isaac Buchanan, of this city, would furnish them.

Sending Insects.—We frequently receive insects to be named, but they generally arrive in such a crushed condition that it is impossible to make them out. We again ask those who send us insects, to enclose them in a small box or in a goose quill. Those arriving in good condition will be reported on as soon as practicable.

Do Dahlias Change Color?—So asks John W. Cook of Ottowa Co., Mich. We never knew a self colored dahlia (i. e., all of one color) to change, but we have known a purple tipped with white to produce flowers all purple and all white, especially among the first blooms of the season, and this may doubtless happen with other marked sorts.

A Non-blooming Rose.—A Lady Horticulturist in Utica, N. Y., says she has a Giant de Battailles rose which will make nothing but vigorous shoots and leaves, and asks what is the reason. As all her other roses do well, we cannot suppose soil and situation have anything to do with it, and venture the guess that she planted a budded bush, that the budded portion died out, and that the rampant portion sprung up from the stock.

Room in an Ice-House.—H. H. Bechbel, Juniata Co., Pa. Schooley's patent preservatory, described in the *Agriculturist* volume 17, page 120 (April No.) is an arrangement by which a room in an ice-house is kept cool for the preservation of provisions, fruit, etc. This or some modification of it would probably accomplish the object you desire.

Wine-making.—We have several letters asking for directions for Wine-making. In September, 1862, we published an article on this subject as full as our limits would allow. In the present crowded state of our columns we cannot republish it, but have extra copies on the usual terms. The subject is too extended for a paper like this; we should be obliged to devote all our pages to it, in order to describe all the details. To those who wish to go into wine-making extensively we say that they cannot do better than to buy "Haraszthy's Grape Culture and Wine-making." This gives all the European processes, and though the price is rather high, they will perhaps save by it in the end. Price $5, for which we can send it post-paid. It is fully illustrated.

Work on Bees.—C. J. Atwater, Ontario Co., N. Y. Quinby's "Mysteries of Bee-Keeping" is a good, *practical* work on the subject. We can forward it post paid on receipt of the price, $1 25.

A Visit to the Largest Farm in Our Country.

The latter part of July we visited, near Bloomington, Illinois, our friend Albert Todd, who was formerly connected with the N. Y. Daily Times, but who has partially laid aside the pen, and is now knowing from actual experience what it is to be an independent western farmer. (We almost envy him his beautiful prairie home, his great corn fields, and his sleek corn-consumers that grow in flesh and money value, while the proprietor sleeps, as well as when he is awake.)——Among other things planned by friend Todd, for our pleasure and profit, was a visit to the great farm of Isaac Funk, a few miles southwest of Bloomington. Everybody knows Isaac Funk, the plain farmer, whose soul-stirring, impromptu eloquence, so electrified the Illinois Senate last winter. That speech has since been printed in hundreds of newspapers, and tens of thousands of copies, on cards and handbills, have been circulated all over the country, and are yet posted up in thousands of shops East as well as West. It did us good to grasp the hand of the Kentucky-born farmer, who, like President Lincoln, wandered in early life to the wild prairies of Illinois, there built up a fortune, and in these latter days has gained a wide reputation by his noble stand for the preservation and perpetuity of our glorious Union.—Fortunately, as we set out on the day's trip, we met Mr. Funk, in Bloomington, bound homeward, and had the pleasure of riding with him in his plain farm wagon. In the familiar conversation on the way, we learned from him the history of his early life, his struggles with poverty, and his gradual success, from the time he emigrated to Illinois nearly forty years ago, with but a few dollars in his pocket, until now, when his landed estate covers an area of full *forty square miles* (25,650 acres!)

We have space but for a few of the more interesting items. Mr. Funk arrived in Illinois, and commenced work in 1824. In 1826, he gathered up 110 head of cattle, and started with them for a market in Ohio, about 450 miles distant, much of the route through the woods of Indiana, and Western Ohio. They were 31 to 32 days on the road. The drivers rode on horseback, carrying their provisions, and camping out with the drove. The first price realized for the cattle was $9½ per head, and afterward it gradually rose to $12½, and then to $15, and the droves were increased to from 200 to 250 head. To make up these droves, several settlers turned in their cattle and received an agreed price, or a proportion of the sales, on the return of the drover.

As fast as the results of these enterprises, and of raising and feeding cattle, furnished the means, Mr. Funk purchased land at the government price of $1.25 per acre, and about one-third of his present estate was secured on these terms. The other two-thirds have been purchased of others, at prices ranging from $2½, up to $30 per acre. Mr. F. has paid the Illinois Central R. R. Company alone, some $80,000 for portions of their land lying adjacent to his original purchases. We entered upon the main farm some six or seven miles southwest of Bloomington. This consists of 20,500 acres, in one tract, longest from East to West, with farms owned by others jutting into it at several points. (The balance, about 5000 acres, is located a few miles east and northeast of Bloomington.) The general character of the main farm is prairie, but there is abundant timber along Sugar Creek, which runs through the estate in a southwest direction, and which, with its branches, furnishes an abundant supply of living water for the stock, throughout the dryest seasons. The surface is rolling, and the sloughs (pronounced sloos), are so located that nearly the whole can be drained; indeed they are so inclined that nearly the whole surface is naturally drained. This feature, together with the woodland, the running water, and the general fertility, render the whole tract one of the best in the State.

About 3000 acres are devoted to corn, and a small portion to other crops, including improved grasses; the great bulk is in natural grass pasture. The corn land is mostly let out on shares. The cultivators usually return two-fifths of the crop for the use of the land, including certain other privileges, and Mr. Funk then buys their three-fifths. This is generally taken in the field, unhusked. A few average shocks are selected by the two parties, and husked, and the whole number of shocks are then counted, and reckoned in bushels by the product of the husked ones. The price is fixed by the average price of corn in the country, for 8 or 10 miles around, or at 2 to 3 cents per bushel below the value of *shelled* corn, at the nearest market town.

The main business of the farm is the pasturage and feeding of cattle for beef. These are purchased from the surrounding country, pastured for a season, fed with corn in the winter, and the next season sold to dealers to go to distant markets—usually N. Y. City. Mr. Funk says he finds it most profitable to buy only the best cattle. Generally, however, he is obliged to take them in lots. In this case the best are fitted for market first, and the smaller and poorer animals are kept a year longer. A few cattle are raised on the farm. We noticed one "little bunch" of 150 cows with their calves. The calves run with their dams, and have all the milk. Only good cows are used for this purpose; the sires used are ¾ or ⅞ Durhams (Short Horn). Generally, Mr. F. buys cattle to use up most of his pasturage, but sometimes, when cattle are high, and the future price of beef quite uncertain, he takes in a few hundred or thousand cattle to pasture, at 30 to 50 cents each per month. He keeps four to five hundred hogs, or just enough to eat up the waste corn left by the cattle, to which the corn is fed on the stalks. He has only eight or ten hundred sheep at present, and some 300 horses and mules. About 60 mule colts are raised each year. The breeding mares are not put into harness at all.

The cattle are sorted into droves of similar ages, about 200 in each drove. The pasture fields are so arranged as to have running water in each. The animals are salted twice a week; the salter taking two or three barrels upon a wagon, drives out to the herds, and scatters the salt upon the ground, spreading it so much that the weaker animals shall have free access to it. Though we are accustomed to see three or four thousand head of cattle in the yards on market days, we were much interested in observing a herd of two or three hundred come scampering across a field at the familiar call of "po-o-o, po-o-o," to receive their expected salt rations. And such fields! 500 acres in one; 1000 acres in another; 1500 acres in another; and 2560 acres (2 miles square, or 4 square miles,) in another single field! That is certainly farming on a large scale. As a rule, we believe in small farms—50 to 100 acres is as much as most men will or can cultivate with the highest profit—but it is gratifying to, once in a man's life, see a farm like Isaac Funk's. If an agriculturist himself, one feels that he belongs to a class which numbers its princes and magnates. Mr. Funk says he has done buying land—feels that he has *enough!* He has eight sons and one daughter to share his possessions, and will be able to give each one a "right smart" farm. Two or three of these are erecting dwellings on the estate. The father retains his simple habits and dress, is social and familiar in conversation, and still occupies the plain frame dwelling which has been his homestead for twenty four years past. He is enthusiastic in the belief that our great country is to be restored to its former Unity.

We shall not soon forget the pleasant day passed on *the* great prairie farm.

Free Homes—Who may get Them, Under the Homestead Law—How to Do it.

An article in the July *Agriculturist* upon the working of the Homestead Law, having called out a great many written and personal inquiries, we requested a friend in the Department at Washington, to make us a plain and brief statement of the provisions of the Law, which we publish for the benefit of those who wish to take up homesteads upon the public lands.

I. The persons entitled to free homes, on unappropriated public lands, are: Any person who is the head of a family, or who has arrived at the age of twenty-one years, and is a citizen of the United States, or who shall have filed his declaration of intention to become such, as required by the naturalization laws of the United States, if he has never borne arms against the United States Government or given aid and comfort to its enemies; and any loyal person, *of whatever age*, who has rendered not less than 14 days' service, during actual war, in the Army or Navy of the United States.

Proof of these conditions to be made by affidavit before the Receiver or Register of public lands, in the section where it is desired to make the location. The names of these officers can be readily learned in any desired locality.

II. Any such person may take up, for the actual occupancy by self or family as a homestead, not more than 160 acres of public lands valued at $1.25 per acre, (or 80 acres valued at $2.50 per acre,) located in one body, and the boundaries agreeing with the usual subdivisions of public surveys—as follows:

1st, Select the land that is regularly surveyed, and present the following application, with $10 to pay survey, and usual fees (about $1), to the Receiver, who will administer the proper affidavit and receipt the money.—On presenting these, the Register will enter the application and file the affidavit.

Form of Application.—"I, [A. B., of town, County, and State,] do hereby apply to enter, under the provisions of the Act of Congress, approved May 20, 1862, entitled "An Act to secure homesteads to actual settlers on the public domain," the —— of section —— in township —— of range ——, containing —— acres."

These blank forms, and necessary information, are furnished by Receivers and Registers.

2d, Not less than 5, nor more than 7 years after entry of application, the applicant will make proof by affidavit and two witnesses, of residence on or cultivation of such homestead for five successive years after the application—that no portion has been sold or otherwise parted with—and that the applicant remains loyal—when a certificate for a full ownership deed (or patent) will be granted by the Register, on payment of the usual fee (about $1); the deed may then be procured from Washington, D. C.

3d, In case of the claimant's death, the widow or lawful heirs are entitled to the homestead by completing the conditions. If the heirs are infant children, it may be sold for their benefit. But it can not be sold at any time for any debt contracted before the patent (or certificate) was granted. Any abandonment of the homestead by the applicant, for more than six months at a time, forfeits the claim for the patent.

CROP REPORTS FOR JULY, 1863.

Gathered by the United States Agricultural Bureau.

	WINTER WHEAT.		SPRING WHEAT.		BARLEY.		OATS.		CORN.		TOBACCO		FLAX.		COTTON.		WOOL.	SORGHUM		GRASS & CLOVER.		P'TATOES	
	Injury from rust, fly, or other causes.	Estimated amount of crop for 1863.	Injury from rust, fly, or other causes.	Estimated amount of crop for 1863.	Injury from drought, or other cause.	Estimated amount of crop for 1863.	Appearance of crop in July.	Injury from rust, or other cause.	Appearance of crop in July.	Injury from drought, or other cause.	Appearance of crop in July.	Injury from drought, or other cause.	Appearance of crop in July.	Injury from drought, or other cause.	Appearance of crop in July.	Injury from drought, or other cause.	Est'd No. of lbs. raised this year in the country.	Appearance of crop in July.	Injury from drought, or other cause.	Appearance of timothy meadows in July.	Est'd am't of clover hay compr'd with that of '62.	Amount planted, compared with 1862.	Injury from potato bug, or other cause.
Connecticut	—	To be filled up next month.	⅛	To be filled up next month.	—	To be filled up next month.	9	1	9	1	10	⅝	9	—	—	—	74c.	9	—	9	10	9	—
Delaware	—		—		—		—	—	—	—	—	—	—	—	—	—		—	—	—	—	—	—
Illinois	1¾		1⅛		⅜		9	1¾	8	1⅜	8	1¼	8	1	10	2¼	62½	8	1½	8	9	10	1⅛
Indiana	1		—		¾		10	1	8	1¾	10	1¼	9	¾	9	1·	55	9	1½	9	9	11	1
Iowa	1 1-6		2		1 1-6		9	1	8	2	8	⅝	9	1	8	5	55	8	2	6	7	10	2
Kansas	1		2		—		11	—	13	—	8	—	10	—	10	2	47	11	—	12	14	12	—
Kentucky	⅛		—		—		10	2	10	1	10	—	10	1-5	10	—	43	9	2-5	9	9	10	—
Maine	—		—		—		10	⅛	9	1	10	—	10	—	—	—	66½	—	—	9	8	11	¼
Maryland	1		1		⅛		6	1⅝	9	⅛	9	1	8	⅛	10	2½	55	8	1-5	9	8	10	⅛
Massachusetts	⅛		1		¼		10	1	10	⅛	9	⅛	10	—	—	—	65	11	—	9	9	10	1
Michigan	2¼		1¼		—		10	1	12	⅛	9	⅛	9	⅛	—	—	59	9	1-5	9	10	11	¾
Minnesota	1		2		—		7	3	7	2	7	1½	8	1⅛	—	—	55	8	2	7	10	10	2¼
Missouri	1		—		—		9	1	9	1	9	2	9	¾	9	⅛	42	8	⅛	8	8	10	1
New Hampshire	1		⅛		—		10	⅛	11	⅛	10	—	11	—	—	—	68	—	—	10	8	10	—
New Jersey	⅛		—		—		8	1	10	—	10	—	9	⅛	9	1	66	10	—	9	8	11	—
New York	¾		1		⅛		10	⅛	10	1	10	—	10	⅛	—	—	61	10	—	10	11	10	⅛
Ohio	1		—		—		8	2	9	1¼	9	¾	9	1	7	3	64½	9	¾	7	7	10	¾
Pennsylvania	⅝		⅛		1⅛		8	1⅛	10	⅛	9	1½	9	1¼	—	3	62	9	1	8	8	10	1·5
Rhode Island	—		—		—		9	1¼	10	—	—	—	—	—	—	—	66½	—	—	9	9	10	¾
Vermont	⅛		¼		—		11	⅛	11	—	10	—	10	—	—	—	64	—	—	11	10	10	1·5
Wisconsin	1		1½		1		10	1	9	1	10	⅛	9	⅛	—	—	57	9	⅛	9	10	10	⅛
Nebraska Territory	1		—		—		11	—	12	—	10	—	10	—	—	—	35	10	—	10	10	12	—
General Average	4-5		1		1		9¾	1	9¾	1	9	5-6	9	¾	9	2	58	9	1	8	9	10½	⅛

☞ In the accompanying tables, the *injury* is represented directly, thus: 1 means an injury to the extent of one-tenth of the crops—¼ means *one-half of one-tenth;* instead of by 9 and 9½. The injuries were so small in most cases as to be but fractional parts of one-tenth, and in order to present them more directly to the reader, the change was made.—In the *appearance* of crops, the former method is preserved. Thus: 10 being an average, 9 is one-tenth below it, and 11 one-tenth above it. The amounts of the crops of Wheat, Barley, and Wool, are not given, as they will be reported more fully in succeeding months, when the results of the harvest are more fully and definitely ascertained.

The Crop Prospects—Unusual Weather.

At no other time within our recollection has it been so difficult to form a correct estimate of the actual condition of the growing crops, or of the actual yield of those just harvested. This difficulty arises from the fact that the season, thus far, has been remarkable for the *variety* of weather in different parts of the country, and even in localities but a few miles apart. Within the boundaries of a single State there was an abundance of rain all through the Spring and Summer, while at points but little distant, a parching drouth dried up the grass, and kept back the corn and the grain crops. Again, in some parts of Ohio, for example, the harvest weather was as fine as could be desired, while in portions of New-York it was next to impossible to gather wheat and oats, and the later hay crop, for want of a few drying days. The difference referred to above, was very marked in going a distance of 1,200 miles westward from New-York City, to the centre of Iowa. At one point the corn was in most vigorous growth, while less than a hundred miles further on, it was tasseling out near the ground, through lack of moisture to carry the stalks up to the usual hight. It would require too much space to specify the condition in each locality. The accompanying tables, which give the results of a large number of observations, gathered from all over the country, will afford some idea of the crops, etc., up to the close of July. The last column in the second table shows a remarkable difference in the *rain-fall* in the several States. Thus, in Connecticut it was over 11 inches, while in Minnesota it was but five-eighths of one inch, and in Kansas less than one-eighth. Throughout New-England the rain fell in July 7 to 11½ inches, while in the Western States it seldom reached 4 inches, and was generally below 3 inches. In Kentucky nearly 7 inches fell. In New-York there were 18 very wet days reported for July alone.

Of the crops as a whole, judging from personal observation, and from information gathered from a great variety of sources, we estimate the yield of wheat (Winter and Spring) to be but a trifle below the average of other years, but the deficiency not equal to the amount of last year's crop still on hand, so that there is enough to meet all home requirements and the probable foreign demand. This last item is very uncertain. If peace continue in Europe, the call upon us for breadstuffs will not be very large. Should the present disturbances in regard to Poland result in a war between Russia and the Western Powers, it will lead to a large demand for our Agricultural products, and materially affect prices here. At present the prices at the seaboard are dependent mainly on the rise and fall in gold, as noted on page 282 of this paper. At present the nominal prices of nearly all agricultural products, especially grain and wool, are tending downward quite rapidly, the price of gold having fallen from 174 to 124 since the first of March last. The prospect for an early and successful close of the war is still further reducing the gold premium.—The Oat crop has turned out better then was feared at one time, though poor as compared with former years. In some places oats have failed almost entirely. The warm weather and frequent showers of August thus far, have pushed forward corn very rapidly, and if early frosts do not interfere, the general yield will be fully up to, if not above an average. Potatoes are filling up well in the hill. Beans are much more largely planted this year than ever before, and bid fair to turn out a good yield. Hay will be abundant in some localities; in others there will not be enough to winter over the usual amount of stock. It would be desirable to transfer part of the neat cattle from the latter to the former sections of the country. We recently saw large numbers of sheep in Iowa brought from the drouth regions of Michigan. The Apple crop, though very good in a few places, will be quite below the average throughout the country; there will be a good demand for all that can be saved by drying.

FRUIT REPORTS FOR JULY, 1863.

Gathered by the United States Agricultural Bureau.

	GRAPES.		STRAWBERRIES		RASPBERRIES		APPLES.		PEACHES		NOTES ON THE WEATHER.					
	Appearance of crop in July.	Injury from rot or other cause.	Injury from drought or other cause.	Average selling price per quart this season.	Injury from drought or other cause.	Average selling price per quart this season.	Appearance of fruit in July.	Injury to fruit or trees, and the causes of it.	Appearance of fruit in July.	Injury to fruit or trees, and the causes of it.	Favorable.	Dry.	Very Dry.	Wet.	Very Wet.	Inches of Rain.
Connecticut	9	⅝	—	$.14	—	$.12	8	1⅜	7	½	—	—	—	—	6	11.46
Delaware	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Illinois	10	⅛	2¼	12	1⅛	13	10	½	11	½	13	9	17	1	—	3.16
Indiana	9	¼	1	12	1	11	9	⅛	10	¾	9	5	8	1	—	3.17
Iowa	10	⅛	2	15	1⅛	11	10	⅛	8	1–5	11	4	16	2	2	3.82
Kansas	10	1	—	25	—	15	12	¾	9	1	5	—	—	1	—	0.11
Kentucky	9	2–5	2	11	2	12	11	—	10	1–5	3	1	1	—	—	6.95
Maine	9	—	2¼	11	⅛	9	7	⅛	—	—	—	—	—	2	9	6.95
Maryland	10	⅛	2⅜	11	⅛	10	8	2	7	2	2	—	—	4	1	8.05
Massachusetts	10	—	⅛	20	1–5	18	7	1½	9	⅛	—	—	—	—	.9	9.76
Michigan	11	⅛	1⅛	10	⅛	10	10	⅛	11	½	20	1	1	—	1	2.83
Minnesota	9	⅜	3	17	2	12	10	⅛	—	—	2	—	9	—	1	0.63
Missouri	10	½	3	11	2½	16	11	⅛	8	1¼	2	—	3	—	1	9.77
New Hampshire	10	—	2	11	—	12	8	1⅛	10	—	—	—	—	1	6	7.77
New Jersey	9	1	3	14	⅛	11	7	2	8	1	—	—	—	2	7	5.97
New York	11	—	1	11	¾	9	9	¾	9	¼	14	—	—	5	18	5.69
Ohio	10	¼	2	12	1⅛	11	8	1	7	1	14	8	15	1	2	2.72
Pennsylvania	10	½	1	12	1–5	9	8	1	8	1	10	—	3	5	11	6.20
Rhode Island	10	—	¾	21	¾	12	10	—	—	—	—	—	—	1	2	9.42
Vermont	10	—	¾	10	—	7	8	⅛	—	—	—	—	—	—	7	7.77
Wisconsin	11	¼	1½	12	1	11	10	¼	11	—	13	6	4	2	2	2.40
Nebraska Territory	10	—	—	20	—	—	8	—	—	—	—	—	—	—	—	2.25
General Average	10	½	1½	14c.	4–5	11c	9	3–5	9	7–10	118	34	77	28	85	5.02

NOTE.—The explanations to the table above, apply equally to this.—The Weather Notes are of especial interest.

The New Tea Substitute—or "New-Jersey Tea."—(*Ceanothus Americanus.*)

Several readers ask for some account in the *Agriculturist*, of the plant which has been spoken of in other papers as affording a good substitute for tea. We intended to do this before, but a press of other matter has crowded it out until rather late in the season. The plant in question is *Ceanothus Americanus*, or "New Jersey Tea." We are not able to trace out the meaning of the botanical name, *Ceanothus*, but its common name, New-Jersey Tea, is given it for the reason that it was used in New-Jersey as a substitute for tea, during the war of Independence. It is one of the common shrubs of our dry woodlands, and is found throughout the Northern States. In Europe it is cultivated as an ornamental plant, and *if* it should prove to be an object, there is no doubt that plantations might be readily established. Our engraving represents a flowering branch of the shrub, which is low and bushy, and from one to three feet high. The stem is of an olive green below, striped with markings of brown, while the young shoots are of a lively green which turns to brown on drying. The leaves are 2 to 2½ inches long, by 1 to 1½ inches wide, with three strong ribs; they are on short foot-stalks, and are smooth on the upper surface, and a little downy on the under side. The flowers are very small, and are borne in dense white clusters at the end of long downy foot-stalks, which come from the axils of the upper leaves. The flowers are followed by a dry three-sided pod, which bears three seeds. As mentioned above, the leaves were formerly used in place of tea; now that the high price of tea and coffee leads those accustomed to these articles to look for some substitute, it is quite natural that the New-Jersey Tea should come again into notice. We trust that our engraving and description will enable those who wish to try the experiment, to identify the plant. As to the quality of the article, the only special information we have is from John Salmon, Esq., of Clinton Co., Pennsylvania. He considers it equal to the imported tea. He says that in one township in his county there is a manufactory which employs a Chinaman to manufacture the "tea," and that they now have about a thousand boxes on hand; that he has used it for a year past, and considers it equal to the best black tea from China. Mr. S. thinks that if adequate capital and skill were engaged in the business, we should be able to produce our own tea. We give the statement as it comes to us, without any further knowledge on the subject than what is presented above. Except for old tea-topers, this substitute may answer as a "warm drink." We frequently hear from those who profess, and doubtless think that clover tea is more delicious than anything from China.

Plan of a Farm House.

The accompanying plan of a house, which has some good features, was contributed to the *Agriculturist* by "W," of Mount Hope, N. Y., who writes: "Having built a house about a year ago, I am aware of the difficulty one has in selecting a good plan. At least in my case it was difficult, for I wanted the most rooms and in the most convenient positions, at the lowest cost. I examined such works as Downing's, Backus's, etc., as well as my files of the *American Agriculturist* and Country Gentleman, but found none that would suit my views without costing more than I felt willing to pay. I very soon came to the conclusion that the nearer square a house is built, the easier can it be divided and retain the great advantage of easy access to the different apartments. Every step saved to the women is so much less wear of patience and disposition. In the accompanying plan, the hall is in the centre and runs from the front door, (which in my house has two long glass panels), to the kitchen. Opening off the hall on the right is the dining room or living room; while opposite, on the left is the parlor. The parlor is only 14.2x13.9 to admit of having a good sized bedroom in the rear of it—for I hold that the parlor is generally the most useless room in the house, if the living room is properly attended to, that is, for us who reside out of town. The bedroom has a door from the parlor and also one into the kitchen. The dining room has one door from the hall and one into the kitchen, and the kitchen has one from the hall, one opening on the back stoop, and also a store room about 7x6, and a water closet 5x6 opening off from it. This last arrangement was greatly objected to by many, in fact nearly all who saw the plans, or the house while building [and for good reasons, we should say.—ED.] In practice I have found no trouble, but great convenience from

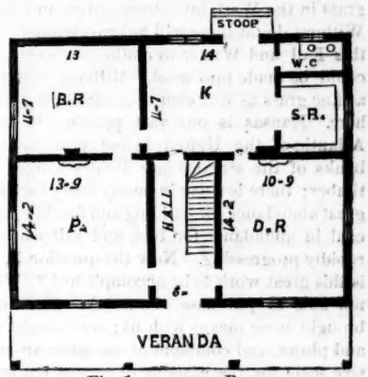


Fig. 1.—GROUND PLAN.

the arrangement. I had the foundation wall left open for about 4 feet and built so as to come under the *double partition* between the water closet and the store room, forming the sides of solid masonry, and the bottom also was made of stone. The opening of the foundation wall is fitted with a door and casing, and it has earth thrown in every week or two, and the entire vault cleaned out once a month, and the contents removed into the manure shed. With this method there has been no manner of offence to the eye *or nose*. The inside is lined with water cement—and, as said before, the partition between the closet and the store room, is double.

The stairway from 1st to 2d floors has a closet under it—though if the cellar was under the whole house I should have the cellar stairs there. I had a small cellar built for my house, the wall crossing the house under the partitions between the bedroom, kitchen, storeroom, and the parlor, hall, dining room—also serving to support the two chimneys which are made so as to have a flue from each room for stoves, and also one for ventilators.—There are four good

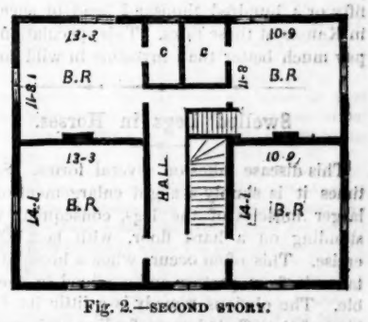


Fig. 2.—SECOND STORY.

sized bedrooms on the second floor, with two large closets, and from the back bedroom on the right, a door opens to the cupola stairs, under which stairs is another closet. You will perceive that each room is capable of receiving very thorough ventilation, and the furniture can be arranged in each bedroom without having a bedstead cross either window or door.

After living in this house a year or more, we have not found any fault with it, except in regard to the cellar not extending under the whole house. This, however, can be easily remedied."

Farm Animals Wanted in Kansas.

The following extracts from a letter to the *American Agriculturist* from F. O. Black, of Shawnee Co., Kansas, will be interesting to farmers having large stocks of cattle and sheep, and a limited supply of fodder for the coming Winter. He says: "I wish to bring before the minds of the people the importance of converting the grass in the West, into sheep, cattle, and horses. Without doubt there will be grass enough burnt this Fall and Winter to clothe our army, if it could be made into wool. Millions of acres of as fine grass as was ever seen, are now growing here. Kansas is one vast prairie. It is the Atlantic of the United States pastures. The banks of the streams are lightly fringed with timber; there is stone in nearly every locality in great abundance for building and fencing; stone-coal in abundance for fuel, and salt works are rapidly progressing. Now the question is, how is this great work to be accomplished? We are not able to purchase the stock. Most of us brought some means with us; we brought oxen and plows, and commenced on quite an extensive scale for the amount of means employed. We thought we could raise grain in great abundance, but for some reason we have not done so; the grain business has been a failure. Stock has always done well, and those that engaged in raising it, have made money. Those that went into grain growing, worked harder and made money out of pocket. Nine-tenths of the farmers west of the Missouri River will vote this same ticket, unless I am greatly mistaken. There are great quantities of stock grazing on the eastern pastures where grain could be grown to a great advantage. Now if the gentlemen will lend us a listening ear (the ladies will not be excluded, for we need many of them here as well as stock,) and send us animals, we will take care of them on as reasonable terms as it can be done anywhere. Some would prefer horses, some cattle, some sheep. Perhaps the latter would be preferable, as the grass in that shape would be easier transported and cost less. I would take two thousand head of sheep, and give two lbs. of wool per head, and return the original stock; or I would give half the wool and half the increase for a term of five years or longer. I presume that there could be fifty or a hundred thousand head of sheep let in Kansas at these rates. This speculation will pay much better than investing in wild lands."

Swelled Legs in Horses.

This disease takes on several forms. Sometimes it is simply a slight enlargement of the larger muscles of the legs, consequent upon standing on a hard floor, with lack of exercise. This often occurs when a horse is first taken in from pasture and confined in the stable. The obvious remedy is a little hard rubbing of the affected parts, feeding with grass or other light food, and plenty of daily exercise.

A worse form of this is when a horse, somewhat feeble and diseased in other parts, suddenly develops swollen limbs. This is apparently the shifting of disease from the other organs. It is accompanied with a lack of healthy circulation, with fever, soreness, and lameness. Sometimes abscesses are formed, and the heels are affected with "scratches." The treatment required is a mild physic and bleeding, if the horse is not much reduced. Warm bathings should be used, and bandages. If this trouble arises from weakness and low living, the horse should have better food, and all means should be tried to improve the tone and vigor of his system.

How to Raise Potatoes Cheaply.

T. Hudson, La Grange Co., Ind., writes to the *American Agriculturist:* "My venerated father used to advise the application of team power in farming, whenever it could be done advantageously. Following his counsel, I use my team in planting and digging potatoes—almost in hoeing them. My method is this: When the ground is mellow, with a single shovel plow I run furrows about 3 or 4 inches deep, and 3 or 3½ feet apart, one way. I cut the potatoes, if large, and drop them 12 or 15 inches apart in these furrows. Then, with a two horse plow, turn a deep furrow over them. Let them remain in this condition until the young weeds show themselves, and before the potatoes make their appearance—usually in about 8 or 10 days—and harrow the ground level. A warm pleasant day is best. This destroys an army of weeds. On sod ground, I usually take every third furrow, and where there are no openings between the furrows, punch holes with a pointed stick about the size of a handspike, and drop the potatoes in these holes and openings, being careful to get them the proper depth. This is soon accomplished. Then harrow thoroughly. If weeds appear before the potatoes come up, harrow again. Afterward plow and hoe as usual. Hoeing will be a light task. The last plowing can be done with a single shovel plow, one furrow in a row, which will form about all the hilling necessary, without the use of the hoe, except to destroy the few weeds that remain.

In digging, plow one furrow through each row, spending no time to pull tops, pick up all that show themselves, and take out the remainder with the hoe. I estimate the raising and harvesting at about one half the labor required in planting in hills, and digging with the hoe."

Rotation or Change of Crops.

A subscriber to the *American Agriculturist*, at Somerset Co., Md., writes: "I have about 80 acres of medium quality tillable land. Soil, a sandy loam. One half is in corn. The other half lies fallow, with a natural growth, quite thick and green. According to the system of planting prevailing in this Peninsula, this fallow ground would be put in corn next year, and the other part lie out to recruit itself with its natural growth. I find that so much corn makes exhausting work, and I think such a system of tillage is gradually impoverishing the soil.

I think I could do better, as follows: Suppose I turn under my present fallow ground, while it is yet green; harrow it well; drill it with wheat, and immediately after give it a top-dressing of lime. Leave enough ground, however, of this half, to sow down in oats, to make grain for my horses. Then next Spring, sow the whole half with clover. At the same time flush up the other half, and put it in some better grass (timothy or clover) than its natural growth, to be cut in the Summer and cured for stock, and then turned under in the Fall to receive wheat and oats, and thenceforth to continue one half in wheat and oats, with clover, and the other half in clover for cutting, and turning under. It seems to me that this system would make vastly less work (especially if having all necessary machinery,) and would also rapidly improve the soil, and exterminate the weeds."

REMARKS.—Probably the proposed change of treatment would be an improvement. The light growth of grass and weeds ordinarily springing up on a summer fallow, is a very inadequate return to make to land from which a crop of corn is gathered every alternate year. Corn is a strong feeder, and must draw heavily upon the original productive elements of the soil, unless there be added something to replace what is required for the growth of the crop. Under such a system the fertility of the land will deteriorate year by year, until it becomes "worn out," as is seen in thousands of acres in Virginia, where unintermitted cultivation of tobacco has drained the soil of its fatness, and left it too poor to pay for plowing, until brought into condition by the addition of fertilizing material. But the plan suggested, may be still further improved by the introduction of stock to feed off the clover during the season after the wheat and oats have been harvested. They will give a good account of the food they consume in the weight of beef added to their frames, and also in the manure which they have scattered over the fields. This will more rapidly bring up the condition of the land, than removing the larger part of the growth, by cutting and curing. It will also be fully as profitable to buy stock in the Spring, fatten, and turn them off in the Fall, as to cut the clover for their consumption in Winter.

The International Fair at Hamburg.

This great exhibition was formally opened according to announcement, July 14th, amid the most enthusiastic demonstrations. The various departments were well represented, but the show of animals was unusually large and fine. The exhibition of sheep, particularly, was the best and most extensive ever seen in Europe; more than seventeen hundred head were entered. It is gratifying to know that although the American contribution to this department was small, it was such as to excite no little admiration, and even envy, on the part of the sheep breeders of Europe. The specimens consisted of *twelve* animals from the flock of George Campbell, Esq., of Vermont, and to these were awarded no less than three prizes, viz: the first prize for buck of best quality, the first prize for the buck yielding the greatest quantity of wool, and the second prize for the best ewe, considering both quantity and quality. The amount of the first prizes is fifty thalers each, equal to thirty eight dollars in American gold. The correspondent of the Tribune writes that this entry of twelve American sheep was made public through the press of Germany several weeks before the Exhibition, and it was regarded as a great joke that America should for a moment think of competing with Germany in sheep. But the competition has been eminently successful, and the long faces of the other exhibitors indicated their mortification and disappointment. Open dissatisfaction was expressed that two of the first prizes for sheep should be awarded to America, and to settle the matter, Colonel Needham, Commissioner from Vermont, proposed a sweepstakes of one hundred dollars for the heaviest fleece, taking into the account the weight of the sheep, the jury to be appointed by the Association, the sheep to be sheared. But the German and French Exhibitors declined the proposition, thus practically affirming the justness of the award.

The following is the list of prizes awarded to

Americans so far as heard from to August 5th:

LIST OF AMERICAN PRIZES.

George Campbell, Vermont, fifty thalers for largest quantity of wool.—1st prize.

George Campbell, Vermont, fifty thalers for largest staple.—1st prize.

George Campbell, Vermont, twenty five thalers for combination of quantity and quality.—2nd prize.

Cyrus B. McCormick, Illinois, gold medal for the introduction and perfection of practical mowing machines.

Seymour, Morgan & Co., New-York, large Silver Medal.—for first-class Reaping and Mowing Machine.

Thornton & Avery, Pa., Silver Medal—Horse-Power.

James A. Saxton, Ohio, large bronze Medal—for improved Harrow and Cultivator.

Whittemore, Belcher & Co., Mass,, large bronze Medal—assortment of Agricultural Implements and Machinery.

L. P. Rose, Michigan, large bronze Medal—for elegantly finished implements.

E. C. Tainter, Massachusetts, large bronze Medal—for planing and tenoning Machine.

George Campbell, Vermont, large bronze Medal—for Willard's patent Root Cutter.

John Vanderbilt, New-York, large bronze Medal—for Agricultural Implements and Machinery.

J. W. Free, Ind., large bronze Medal—Fanning Mill.

Hall & Spear, Penn., bronze Medal—splendid Plough.

S. P. Hubbel, N. Y., large bronze Medal—Seed Sower.

Cultivation of Tobacco.

The Essays on this subject which were received at the *Agriculturist* Office in response to our offer for premiums, and which have been published in pamphlet form, undoubtedly form the most valuable practical work upon the subject ever issued. Each of the different writers contributes some items from his own experience. The book costs only 25 cents, post-paid, and should be in the hands of every grower of tobacco. As a partial help to those not having the complete work, we give here some seasonable extracts from the essay of Mr. Oliver T. Bishop, Hartford County, Connecticut.

Topping.—Cultivators do not agree as to the time and where to top the plants. Some favor the plan of topping as soon as the blossom-buds appear, others prefer to wait until in blossoms. I think there is no harm in letting the *earliest* plants bloom before being topped, but after once beginning, they should be broken off as soon as the buds begin to look yellow, and the latest plants as soon as the buds appear. A beginner will be apt to top the plants too high. The object is to ripen and develop as many leaves as the plant can support; if topped too high, the top leaves are small, and when cured are nearly worthless, and the other leaves are not as large or heavy; whereas, if topped too low, then you lose one, two, or three leaves, which the plant might have supported. As a general rule, *a plant just in blossom should be topped down to where the leaves are full seven inches wide*, leaving on the stalk from fifteen to eighteen leaves. This will leave the stalks about two and a half feet high in good tobacco. Later in the season, top the plants sooner and lower. Let as many of the earliest plants as will be wanted remain for seed. One plant will furnish seed enough to put out five acres, at least. These should be wormed and suckered like the rest, only leaving the suckers above where you would ordinarily break it off, were you to top it. The plant should now be looked over every other day, to break off the suckers and catch the worms. This should be done as soon as the dew is off in the morning, and towards night, as the worms are eating then, and can be found more readily, while in the heat of the day they remain hid. Great care should be taken not to break off the leaves while going through; if broken they are mostly wasted before the crop is ripe.

Suckering.—As soon as the top is broken off, the sap is thrown into the leaves, causing them to expand rapidly. In the mean time suckers will start out just above where each leaf joins the stalk; these must be broken off, or the growth of the leaf will be checked, as the sap will be thrown into these young sprouts. Those nearest the top will start soonest, and will require breaking off twice before the plant is ripe; those at the bottom must all be broken off. This is the hardest and slowest work of all. Not only will these suckers check the growth of the plants, but if allowed to grow, will soon break or pry off the leaves, or cause them to grow out at right angles from the stalk, rendering them more liable to be broken off. It is a good plan to have a piece of corn on the north side of a piece of tobacco, or, at least, two or three rows, to shield the growing plants from winds.

Cutting and Hanging.—The plants grow rapidly and require less than three months from the time of setting, before they are ready to cut. Any one used to the cultivation of the crop knows when it is ripe; the veins of the leaves are swollen, the leaves *begin* to look spotted, and feel thick and gummy. The ends of the leaves will crack on being doubled up. After it is ripe, the sooner it is cut the better, as it is liable to injury by frost or hail, and will not increase in weight as fast as the worms eat it, and the leaves get broken in catching worms. The plants will generally ripen from the first to the fifteenth of September; they should not be cut immediately *after* a heavy rain unless in danger of frost, as a portion of the gum washes out, but should be allowed to stand two or three days. The cutting should not begin until the dew is off; a cloudy day is best, for when the sun shines hot, they will not have time to wilt sufficiently before they will sunburn, which may be known by the leaves turning white and looking puckered. Commence on one side of the piece, laying the plants all one way, in order to facilitate loading. Most of the plants may be broken off easily, by gently bending them over one way and another. Small plants, which will not break, may be sawed off with an old saw or cut with a hatchet. If the sun shines too hot, the plants should be turned over carefully to prevent burning. After lying an hour or two, to wilt sufficiently, so as not to break by handling, they may be carted to the barn or shed. Ample room for curing should be provided, and if any one expects to raise tobacco for any length of time, it is best to have a building erected expressly for it.

Buildings.—In the first place one wants to know about how much room he will need, and then build accordingly. To hang an acre of good tobacco requires a building about thirty by twenty-four feet, with fifteen-feet posts. Two girths should be framed into the posts on all sides of the building; one five feet above the sill, and the other ten feet above, to rest the poles on, also to nail the covering boards to. This gives a space of five feet for each tier of plants. Have a beam run across the center of the building, with a post in the middle with girths to correspond with those on the side, extending lengthwise through the middle of the building for the poles or rails, each twelve feet in length, to be laid upon; or if sticks are to be used (as hereafter described) lay rails or poles once in four feet for the sticks to rest upon. Place a ventilator upon the center of the roof, and have one board in every four feet hung on hinges, to be opened or closed at pleasure. If made with a floor and a cellar underneath, to let down the tobacco into when ready to strip, all the better.—We will now return to the crop, and commence hanging it. A common way of doing it is by tying with common twine. Tie the end of the string tightly around the but of one plant, and by placing it against the side of the pole nearest you, put another plant on the opposite side and carry the string over and around it, placing the plants alternately on each side of the pole until filled, then fasten the string, place the pole in the right place, (it should be nearly right before it is filled,) and commence on the next one in like manner, having some one to hand the plants as wanted. As to how thick to hang, it depends upon the size of the plants, but in good-sized tobacco about nine inches on each side is close enough; that will be from thirty to thirty-two on each pole of twelve feet; place the poles from fifteen to eighteen inches apart. Another method of hanging, much practiced and approved by many, is to hang on slats or sticks sawed out four feet long, one and a quarter inches wide and five eighths of an inch thick. Chestnut timber is generally used here. The common lath answers very well. An iron needle made something like a chisel is used to slip on to one end of the sticks, which are sharpened a little at one end to receive it. It is made about eight inches long, wedge-shaped at the small end, and a socket one half by one inch to slip on to the sticks. When ready for use, have a place fixed near where you unload, to hold one of these sticks out at right angles from a post, and about four feet from the ground. Let the plants be handed you from the load and slip them on the stick, piercing the stalk about six inches from the but; put six or seven plants of medium size on each stick—more if smaller. As each stick is filled, it may be carried to its place in the barn. In getting them to the top of the barn they may be handed up with a pitchfork, lifting them by the middle of the sticks. These sticks should be about eight inches apart. I think a greater amount can be put into a given space by this method without danger of sweating, as it is more evenly distributed. The loose leaves that have been broken off while handling, may be cured by placing four or five together and securing to a small pole, in the same way as plants are hung with twine.

Saving Seed.—Strip the leaves off from the seed-stalks, and tie up the stalks to a stake driven into the ground by them, else they may be blown over. The seed should be gathered before hard frosts destroy its vitality; when fully ripe the pods or seed-vessels may be picked off and dried, then crush or roll them between the hands until the seeds are all out; the seeds may then be separated from the chaff by passing it through a fine sieve.

Curing.—After the crop is all housed, the building should be well ventilated by opening doors, and the boards on hinges, to secure a free circulation of air throughout the building. On rainy, damp, or very windy days, the building should be shut up as tightly as possible, and opened again on return of fair weather. After hanging several weeks, until the leaves are mostly dried, the building should be closed to prevent the dry leaves from being broken by the winds. It usually requires about twelve weeks to cure the plants thoroughly, that is, so that there is no more juice in the leaves or leaf-stems; it matters not if the main stalk is not dry, you need not expect it, and there will be green leaves that will not cure but freeze while green, and are worthless. It will then be ready for

Stripping.—This must be done only after a damp, rainy spell has softened the leaves, so that they may be handled without breaking; it may then be taken from the poles and stripped as fast as taken down, or it may be carried into a cellar and be piled in heaps to be stripped at leisure; care must be taken, however, not to let it remain too long in this condition, as the green stalks would soon heat and injure it. To strip a plant, hold it in the left hand by the but, and with the other pull off all the bottom leaves and drop them on the ground in a pile for "fillers," or the poorest quality; next, take off three or four more, or until you come to the best leaves, these put in another heap for the "seconds;" now strip off the remainder for wrappers, except such as are badly wormeaten or otherwise injured—such go into a poorer quality; throw the stalk away and put the handful of wrappers under the left arm to hold while stripping another plant in like manner, put the two handfuls of wrappers together, taking pains to keep the buts even, and bind them by firmly winding a leaf around them at the but, commencing within a half or three quarters of an inch from the end, and winding down smoothly about two inches, part the "hand" and put the end of the band between the parts, then close it again, thus securing the end and holding it tight. If the plants are very large, the leaves from each may be tied up separately instead of putting two together. Hands that will weigh half a pound are about large enough. The seconds and fillers are afterward picked up and tied in the same manner. Much of the value of tobacco in market depends upon the manner in which it is assorted and done up, as a few poor leaves in a hand would make a difference of several cents per pound in the price. None but good sound leaves, free from rust, pole-sweat, frost, or large holes should go into the best quality. Small plants rarely contain any first quality, but should go into the seconds and fillers. A little practice will enable any one to sort it properly, better than any rules that can be laid down on paper. There is much difference in the color and fineness of the leaf, a darkish red or cinnamon color is preferred to that of a darker shade; the veins should be small and far apart, and dark as the leaf, as "white stems" are objectionable by reason of their growing lighter still when going through the sweat after it is cased. After it is stripped, it should be packed down in a cool dry place. Lay some boards flat on the ground about four feet wide, and as long as you wish the pile to be, and commence by laying a row on one side of the platform with the buts out, then on the other side in the same way, letting the tips lap about six inches, or just enough to keep the pile level: proceed in this way, laying on each side alternately until all is packed. Lay the hands as close to each other as possible, not sprawled out like an open fan, but compactly. Lay some boards on top of the pile, and put on just weight enough to keep them snug. Some boards or blankets should be put at the ends of the pile to keep it from drying up. The seconds and fillers are packed in the same way; they may be packed in a separate pile or on top, or at the ends of the wrappers. It is now ready for market. If it should remain long in pile it should be examined occasionally to see that it does not hurt, as it sometimes happens that when taken down, stripped and packed when it is too damp, it will grow damper and perhaps rot. If too damp, it should be repacked on some windy day to give it an airing, shaking out the dampest hands and letting them remain exposed until sufficiently dry to be repacked. The stalks, after being stripped, should either be spread on grass land and remain until Spring, when they may be raked up and carted on to the land designed for the next crop of tobacco, and burnt, or let them remain in the barn until Spring, when they may be cut up fine and dropped into potato or corn-hills, using a good-sized handful to each hill.

I have raised the past season on a little more than three fourths of an acre, 1,427 pounds *wrappers*, worth at the present time 25 cents per ..; 221 pounds *seconds*, worth 12 cents; and 146 pounds *fillers*, worth 10 cents; amounting to 1,794 pounds, worth $397.87.

Fig. 1.—POISON IVY.

Talks About Weeds....IV.

POISONOUS PLANTS.

We devote the chapter this month mainly to an account of a plant, which though it does not infest crops, is very common along old walls, and in neglected corners, and is of such a dangerous character that every one should be able to identify it. "Poison Ivy," or as it is sometimes called, Poison Oak, and Poison vine, is botanically known as *Rhus Toxicodendron*. It is a plant that presents several forms; sometimes it is a small shrub 1 to 3 feet high—sometimes it trails over stone walls and rocks, and again it is found climbing to a great hight upon trees, to which it clings by means of numerous small roots that it throws out from its stem. All these forms are varieties of one species. The leaves are *three parted*, the divisions rather irregular in shape, and are either entire on the margins, or irregularly lobed or toothed. The flowers are in panicles, small and of a greenish white color, and are followed by whitish berries. The popular names given above, as well as the specific name *Toxicodendron* (Poison-tree), indicate that its reputation as a dangerous plant is well established. Touching or handling the plant will, with many persons, produce serious consequences; others, perhaps the majority, are not affected by it, while some are so very susceptible that by merely passing near the

Fig. 2.—VIRGINIA CREEPER.

plant, especially in hot sunshine, they will receive its poisonous influence. It is probably the case that very few persons are capable of being poisoned by it. If it were otherwise, the plant being so very common, we should hear of more frequent cases of poisoning. Where a person is but slightly affected by the poison, there is a redness and violent itching of the face and hands, followed by little watery blisters. Where the effect is severe, the swelling and other symtoms are much increased. We have seen a person with the face swollen to such a degree that scarcely a feature could be distinguished. The usual treatment in poisoning of this kind is to give a cooling purgative, such as salts, and apply a solution of sugar of lead to allay the intense burning and itching. Unless in unusually severe cases, the effects do not last more than a week. There is a very harmless climber which is sometimes mistaken for the Poison Ivy, and avoided as being poisonous,—the Virginia Creeper. As the last is not only a perfectly harmless plant, but one of our most valuable ornamental climbers, we introduce an engraving of a leaf of it, in order that the difference between the two plants may be readily seen. In the Virginia Creeper the

Fig. 3.—POISON SUMACH.

leaf is *five parted* and much more thick and glossy. We have known one instance in which the Poison Ivy was used as an ornamental vine, it being mistaken for the Virginia Creeper; a rather unsafe plant to have near the house.

Another shrub of the same genus, *Rhus venenata*, called Poison Sumach and sometimes Poison Dogwood, is abundant in swamps and low grounds throughout the Northern States. It is a very pretty shrub or small tree, and with its pinnate leaves it looks somewhat like the Ailanthus. It is distinguished from our other shrubby Sumachs by its loose clusters of white berries. This is even more dangerous than the Poison Ivy. The above figures are taken from American Weeds and Useful Plants, a work which we have already highly commended.

TREE ROOTS IN THE TILE DRAINS.—One of the most important drains on the writer's premises had been so obstructed for several years by the fibrous roots of an elm, as to require it to be relaid twice in five years. The last time, however, a new method was tried, and thus far (for four years,) the stream has run freely. The method was this: All along the line penetrated by the roots, the tiles were imbedded in water-lime mortar, then covered with a foot of tan-bark, and the remainder of the trench filled with common soil. The mortar soon becomes hard like stone, and the tan-bark both seems to keep away frost and the tree roots. [If tan-bark will repel the roots of trees, the lime would not seem necessary.—ED.]

Hints about Farm Laborers.

One of the sorest troubles in farming, just now, arises from the scarcity of help,—a scarcity which must continue as long as the war lasts, unless an unusual foreign imigration supplies the want. Were it not for labor-saving machinery, multitudes of crops would go unharvested, and other farm work go unperformed. Along with this scarcity, the quality of the workmen left is also poor. Not all, indeed, but many of our hired men are eye-servants, working lustily while watched, but lounging, dawdling, and, perhaps, drinking when alone. Tools are not taken care of, the work done is slurred over, the horses and cattle are neglected, many things are wasted—in short, the real interests of the farmer are not cared for. It is vexatious to try to carry on a farm with such "help." One must be always present with his men, must work hard himself, and do the worst jobs with his own hands. A slave's life is it to be bound to such a task, and the money gained by it, is earned at hard rate.—But here are a few helping thoughts. If a farmer can contrive to get young men into his employ, and can manage to keep them for a few years, he can train them into good workmen. Yet much depends on the employer himself. Many of our bad laborers have been made such by the unkindness, dishonesty, or shiftlessness of their masters. If a good farmer can get young, unspoiled men, fresh from the "ould countrie," and can keep them long enough to teach and train them, he will generally have good and faithful workmen. Hence, one way to improve our farm laborers would be for the agriculturists of a neighborhood to employ some trusty agent—say at New-York or Boston, to select companies of likely young foreigners who prefer country life, and then to send them directly on to the farmers wanting them. Also, let the farmers of each neighborhood pledge themselves not to hire a laborer coming from another farmer unless he brings a certificate of honorable discharge from his last employer. If the Agricultural Societies of town and county would form some system of this kind to provide a steady supply of good material for workmen, it would raise the character of our laborers, and relieve farming of one of its greatest troubles. Of course, it is implied that the farmer is to pay good wages, to study the wants of his men carefully, and to seek, in every reasonable way, to promote their comfort and happi-

ness. This last item is not the least in importance of what we have here suggested.

Industry of Italian Bees.

Rev. L. L. Langstroth, sends to the *Agriculturist* the following facts, communicated to him by Wm. Noah Coler, of Montgomery Co., Ohio. On the *8th of August* 1862, a stock of Italian bees threw a large swarm, which filled its hive two-thirds full of comb, and gathered honey enough to winter well. The new colony swarmed on the 15th of May last, and in eight days swarmed again. The first swarm filled its hive and swarmed on the 22nd of June; the second swarm at the same date, had its hive three quarters full. The season has not been a good one for bees. In Southern Ohio, a swarm of *black* bees coming off as late as the 8th of July, is seldom considered to be worth hiving.

Question to Italian Bee Keepers.

Among the many strong claims put forth for the Italian Bees, it is stated that they collect more honey and from a greater variety of sources than the common bee. It is said, that they gather sweets from raspberries, blackberries, and other fruits, and from flowers not visited by other bees. The question we would ask through the *American Agriculturist* is, whether the honey thus collected is of equally good quality with that gathered by the common bee, and indeed, whether it may not have a flavor that will unfit it for table use. It is well known that the honey gathered by the humble bee, the different species of hornets, and the wasp, is watery and not of pleasant flavor. Along with the other tests applied to the Italian bees, this matter of the quality and flavor of their honey should not be neglected.

The Value of Phosphates for Wheat and Turnips.

Messrs. Editors of the Am. Agriculturist:—In a former number you say: "We know that the ashes of wheat contains a large amount of phosphoric acid, and turnips but little, yet the application of phosphates to the soil does very little good to a wheat crop, while the superphosphates are the great turnip manure in England." This seeming anomaly, is, I think, well explained in an article by Doct. Voelcker, in the Journal of the Royal Agricultural Society, from which I quote for the benefit of those who may not have access to the original:

"In England the application of purely phosphatic manures is confined almost exclusively to root crops: why is it that these manures, as a rule, benefit root crops more than cereals and other crops? The idea naturally suggests itself that turnips or swedes require more phosphoric acid to bring them to perfection than wheat, barley, and oats; and an examination of the ashes of these several crops confirms this impression. A given quantity of ash of turnips, it is true, contains less phosphoric acid than the same quantity of wheat ash; but since the total amount of mineral matters or ash in a crop of turnips is very much larger (?) than that in a crop of wheat, the amount of phosphoric acid which is removed from the soil by the one is very much more considerable than that taken up by the other.—Taking the average composition of the ash of turnips, bulbs and tops, deduced from the recorded results of numerous reputable experimenters, we have in 100 parts:

	Bulbs.	Tops.
Potash	42.0	20.0
Soda	2.0	3.0
Magnesia	2.0	1.0
Lime	11.5	30.0
Phosphoric acid	9.0	5.0
Sulphuric acid	11.5	11.0
Silica	1.0	1.0
Chloride of sodium	6.0	8.0
Chloride of potassium	—	5.0
Carbonic acid	15.0	16.0

The average composition of the ash of the grain and straw of wheat is about as follows:

	Wheat.	Straw.
Phosphoric acid	50.0	5.0
Sulphuric acid	.5	2.7
Silica	2.5	67.0
Lime	3.5	5.5
Magnesia	11.5	2.0
Potash	30.0	13.0
Soda	2.0	4.8
Chlorides of potassium and sodium		

If we suppose the crop of bulbs of the turnips to weigh 20 tons per acre, and the tops 6 tons, and take the average percentage of ash in the bulbs at .70, and that in the tops at 1.7, we remove from each acre, in round numbers:

In the bulbs lbs. of mineral matter.....314
In the tops " " " .....228—542 lbs.

An average crop of turnips in fact removes from the soil 28¾ lbs. of phosphoric acid in the bulbs, and 11¼ lbs. in the tops—39¾ lbs., or, in round numbers, 40 lbs. in all.

The grain of wheat, on an average, contains 1.7 per cent. of ash, and wheat straw 5 per cent. The mean produce of wheat per acre, taken at 4 quarters—32 bushels at 60 lbs. the bushel—is 1,920 lbs. of wheat; and the straw, generally twice the weight of grain, equals 3,480 lbs.

lbs.		lbs.
In 1,920 of wheat there are of	mineral matter	32½
In 3,480 of straw there are	" "	192
Total mineral matter per acre		224½ lbs.

A fair average crop of wheat indeed removes from the soil 16¼ lbs. of phosphoric acid in the grain, and 9½ lbs. in the straw—together 25¾ lbs., or in round numbers, 26 lbs. Therefore a turnip crop weighing 20 tons per acre, takes 14 lbs. more phosphoric acid out of the soil than 32 bushels of wheat and 3480 lbs. straw."

I think that the above throws some light upon an interesting point in agricultural chemistry, and will be interesting to those of your readers who are turning their attention to the use of bones and faithfully prepared phosphates. I am no advocate for the use of loudly puffed fertilizers, but believing that we should not let the real merits of the phosphates be overlooked, because the name is attached to valueless articles. I quote the above, that the farmer may see that phosphoric acid in some form is needed by his root crops. RHODE-ISLAND.

REMARKS.—In reply to the above, it may be stated in the first place, that all calculations based upon the amount of phosphoric acid reported in the ashes of plants, are exceedingly unreliable. Until within the last few years, phosphoric acid was determined by the magnesia process, a very uncertain method at best, as all experienced analysts are aware. A great deal of the reported phosphoric acid was doubtless magnesia. But granting that the analyses were approximately or relatively correct, the fact (if a fact) that an acre of turnips contained 40 lbs. of Phosphoric acid, and an acre of wheat 26 lbs. (only about one third less) would not, we think, explain why phosphatic manures should so greatly benefit turnips, and yet produce so very little effect upon wheat. We have analyzed many specimens of soils from different localities, but never found one that did not contain detectable phosphoric acid enough for an almost unlimited number of crops, either of turnips or wheat; while there may be enough for many crops, and still the amount be so small in the minute proportion of soil analyzed, as to escape detection by the most skillful chemist. We consider it exceedingly uncertain what proportion of the mineral substances found in the ashes of plants are really *necessary* constituent elements. The fluids taken into the roots contain dissolved earthy materials, such as chance to be found in the soil. When these fluids are evaporated from the leaves, the earthy materials (minerals) are left behind, as accidental impurities—not necessarily there as essential constituents. The large leaf surface of the turnip evaporates more fluids than the small leaved wheat, and there will of course be more ashes left behind in the turnips, to be found on analysis—we repeat, not necessarily there as essential constituents. When chemical analysis can discover what *are* the essential mineral constituents of any plant, we shall be better able to judge of the probable relative value of the different mineral manures. Until then, we shall remain much in the dark, and be obliged to rely mainly upon experience—upon the results of practical trials. For *some* reason, a manure made of bones dissolved in sulphuric acid benefits a turnip crop. May it not be that the sulphuric acid, together with the free phosphoric acid which has a strong affinity for ammonia, are so effective because of the large amount of ammonia they attract or retain for the use of the plants? We throw out the idea as suggestive, not as a posittve explanation.—ED.]

Cut up Corn by the Ground.

A "Young Farmer" asks whether it is better to "top" corn, by taking off the stalks at the ears, and afterward gather the crop, or to cut the whole stalk at the bottom. We have always advised the latter course, and still recommend it for the following reasons. It saves labor. The whole hill can be severed almost at a blow while topping requires handling each stalk. The stalks yield more fodder; the bottom leaves can be well cured and saved. The crop can be housed earlier, and much saved from molding, and destruction by birds and vermin. The crop should be cut as soon as the corn is glazed. The sap remaining in the stalk will be appropriated by the kernels, and the stalks, if properly cured, and housed will make good fodder. It may afterward be husked out at leisure under cover. This plan of course will hardly do on the prairies, where hundreds of acres in a body are cultivated, but is applicable in most other sections, where only limited areas are given to corn.

Poor Honey Yield.

During our visit at St. Johnsville, N. Y., August 3d, we noticed that the hives were poorly filled, and Mr. Quimby informed us that owing to the almost constant heavy rains in July—the great honey collecting month—the bees had been able to make but little, and the prospect was that the supply of clover honey to be spared from the hives would not perhaps exceed a tenth of the usual yield. The second crop, which is mainly from buckwheat, may possibly be large, but this is not so valuable in market. As the rains were not general over the country—we saw very few showers during July, at the West—other locations may perhaps make up in part for the deficiency in the Middle and Eastern States, but we judge the supply on the whole will be much below the average of other years.

Our Western Jaunt.

It is our aim to devote the mid-summer season of every alternate year, to a tour of observation through the western or mid-western division of the great *Agriculturist* Parish, which extends from the Atlantic to the Pacific. This year we went on our fifth western trip, out through New-Jersey, Pennsylvania, Central Ohio, and Indiana, into Illinois and Iowa, and returned through Michigan, Northern Ohio, and New-York, making occasional stops, going and returning. (In these trips we generally ride only in the day time, and usually arrange to secure a position in the center of the baggage cars of the railway trains, because the wide doors give an unobstructed view of the country on either side, and we there have the company of local employees of the roads, who are able to point out objects of interest, and to give much general information. In this way we see much of the face of the country, the style of culture, the condition of the crops, etc. Indeed, were we not to stop at all, but travel thus for 3000 to 5000 miles, we should consider the time well spent).—Our main object, this year, was to study prairie farming, especially in Illinois and Iowa, which are *par excellence* the prairie States. We stopped at some twenty to twenty-five localities, and from observation, and conversation with practical men, gathered a large amount of information. It would be impossible to give a minute journal of what we saw, heard, and learned—as some may expect—a large volume would be needed. Sundry items will appear in this and other numbers, and we hope our western readers will find us still better prepared to supply a journal specially adapted to their wants, so far as there is any specific difference in the modes of cultivation East and West.

Beet Sugar—Important Experiments.

Much has been said and written upon the question of making sugar from beets, in this country. Many journals have urged the culture of the Sugar Beet here, claiming that it must be extremely profitable, because it has paid well in Europe, where the manufactured product is subjected to a high tax. We have been censured for refusing to admit into the columns of the *American Agriculturist* essays from those who are enthusiastic on the topic. The ground we have taken, has been, that there have not been sufficient experiments to demonstrate the practicability of manufacturing beet sugar to compete with the cheaper grown cane sugars of the Southern States and West Indies. That sugar can be made from beets in our climate, has been proved by experiments on a limited scale, with imperfect apparatus, but it is still a question whether the soil, climate, and system of labor in the Northern States, will enable us to practice the European methods with success. We are happy to chronicle the fact that at one point, at least, experiments on a large scale, with the best apparatus, are being carried on the present year. Last month we made a trip of a hundred miles out of our course, to see the establishment referred to, at Chatsworth, Illinois, a new town on the Logansport, Peoria, and Burlington Railroad, some fifteen miles west of Gilman Station on the Illinois Central Railroad. At this point (Chatsworth), Messrs. Gennert Brothers, (of 142 Center-st., N. Y. City,) have planted between one and two hundred acres of Sugar Beet, and are putting up a large complete building, with steam engines, evaporators, and other apparatus, of the most improved and expensive character to be found in Europe. The Manufactory is in such a state of forwardness that it will be ready for the growing crop. We regard this as one of the most important agricultural enterprises of the day, and too much credit can not be given to the Messrs. Gennert, for taking hold of the subject in the way they have. It is wholly an experiment, and if successful will be of immense benefit to the whole country, for the manufacture of beet sugar will at once be gone into generally; while if it prove a failure, they and they alone will bear the loss, which must amount to forty or fifty thousand dollars at least. We made our visit unsolicited, and unexpectedly to the proprietors, and we found them rather disposed to keep the matter quiet, but we think the country should know what is being done, and that the Brothers Gennert should have the credit of the enterprise, which will be equally creditable to them, whether a success or a failure. We wish them the largest success and profit in the undertaking. Until we have the result, it is not important to describe particularly, either the manufactory, or the process of growing and manufacturing the roots. If successful, we shall take the earliest opportunity of placing the whole matter before our readers.—At the time of our visit (July 24,) the long continued drouth was likely to greatly injure the growing beets, and it was feared that another week of such weather would destroy them for the season. As a heavy rain came on before we were twenty minutes away, we trust the feared calamity was averted.

Sorghum.

A BIT OF HISTORY.

Seven years ago (1856) we raised our first plot of Sorghum, or "New Chinese Sugar Cane," as it was popularly called. We published an account of it, describing it as promising well, and recommending our readers to try a little garden plot, to see how and *where* it would grow, and offered *free* to our readers all the seed we had grown and could procure—a little parcel to each—but cautioned all against going into its culture extensively, even if seed could be procured, until its merits and demerits were better known. Shortly after, a stranger called and offered us *half a dollar an ounce* for all the seed we had, which was refused as it had been promised to our readers. On further inquiry we gleaned from him that there was such a rage for the seed at the West, that he could divide an ounce into a dozen parcels and sell them at $1 each. We immediately set about procuring, direct and indirect, all the seed we could obtain in France and Algeria, where alone it had been cultivated to a moderate degree. Several lots, of 100 to 300 lbs., were secured, and we commenced scattering it *free* among our readers all over the country. *Six thousand* parcels were sent to Illinois alone. Some of our cotemporaries cried out "humbug." But as we then answered, where was the humbug when we *gave away* all the seed, and specially advised our readers to try it only on a small scale?—The seed thus sent out was grown and propagated by twenty to twenty-five thousand persons; and it is not claiming anything too much to assert that three-fourths, if not seven-eighths, of all the sorghum now grown in this country has come from the seed thus sent out *free* from the Office of the *American Agriculturist*. Of the advantage to the country, let the tens of millions of gallons of good syrup produced last year, and to be produced this year, bear witness.

SORGHUM GROWING IN IOWA.

During our recent visit in Iowa, we found that a large proportion of the families in that State depended mainly upon home-produced sorghum syrup for family sweetening. A little sugar is used for tea, but even tea, and especially coffee, is frequently sweetened with syrup, owing to the scarcity and high price of sugar. The sorghum syrup is a common article of sale at the stores. We saw sorghum mills, generally home-made with wooden rollers, in almost every part of Iowa visited, and very frequently in Illinois. In Iowa, there will, perhaps, be not much more grown this year than last; the opinion seemed to be that it would pay to grow enough for home use, but not to produce it for export, except when done on a large scale with improved apparatus. We saw hundreds of small plots, of ½ to 1½ acres, and occasionally a large field. The growth and manufacture of sorghum on a large scale is in progress in several localities in Illinois and Ohio, and somewhat in Indiana.

400 ACRES OF SORGHUM.

Near Utica, Illinois, on the Chicago and Rock Island Railroad, we saw a plot of about 400 acres of sorghum, which is being grown for special experiments, by Mr. Belcher, the great sugar refiner of Chicago. We called upon Mr. B. in Chicago, and learned from him that he intends to boil down the juice to syrup, and then transport it to his Refinery in the city, and operate further upon it. After learning his plans and views we concluded that his experiments will be of special value to the public, and perhaps result in settling the question whether good grained sugar can be profitably produced from sorghum. Mr. Belcher has refined many thousands of gallons of the syrup during a year or two past, and has contracted for a large amount this year. He promised to give us the results of this year's operations, especially in his experiments with the 400 acre plot. In this line, he is doing for the public what the Brothers Gennert are, in the matter of Beet Sugar.

For the American Agriculturist.

The Autumn Exhibitions.

The time is just at hand for our great annual agricultural shows. We hail their return—not because we think them unmixed with evils, or beyond improvement, but because of the many good influences attending them. Their social influence is not to be undervalued. They bring together old friends, and lead to the forming of new acquaintances; they call out all classes and ages from different communities, and bring them together on terms of equality and good feeling. We, hard-working, care-worn Americans, give none too much time to such social gatherings. And then they appeal happily to the public taste. One can hardly spend a day more profitably and enjoyably than by attending a well-conducted Fair. It would be strange if he did not see or hear something new. No gardener possesses all knowledge respecting vegetables, fruits and flowers. No one farmer knows all possible things concerning stock, grains, grasses, farm implements, and the numerous processes of husbandry. Then, too, the ingenuity of the ladies is always bringing out some new display of handy-work which attracts large admiration. And, beside these, there are numerous articles of the fancy sort, which please and instruct beholders. We are not altogether inexperienced in Fairs, yet we never attend one without learning something new. And we always see young

and uninformed persons fairly filled with surprise at what they behold. Many a gardener, wise in his own conceit, has had his eyes opened to the difference between poor vegetables, apples, pears, plums, cherries, etc., and good ones. Many a man, who had thought the Fox grape the best of all grapes, or at least good enough, has got a new idea or two on tasting the Delaware, Diana, etc. And these men go home with new impulses, resolved to adopt and realize their new ideas in their own practice.

There is, however, room for improvement in our Fairs. Would it not be well to discourage more and more the accompanying shows of three-legged calves, double-headed sheep, learned bears and monkeys, and manifold monstrosities and humbugs? Female equestrianism is no proper part of an agricultural exhibition. Might not some further means be used to convey useful information to those seeking it? If fine-looking fruit garnishes the tables, why not let us know something of its quality? And if any one wishes, why not let him know something as to the mode of pruning and training, the fertilizers used, etc., etc.? Perhaps an afternoon or evening might be set apart for answering all such questions and giving other information. This would send the people home instructed and pleased. The practice sometimes adopted of devoting an evening to *discussion* of practical topics, is highly commendable. We should have some simple plan for communicating information to the uninformed. The practice of awarding premiums for the best-managed farm or garden, or fruit orchard, for the best written essays on practical topics, for the best new seedling of any fruit, are all movements in the right direction, and might well be adopted by all such societies. RURALIST.

Various Humbugs.

It is a thankless task to fight humbug in its various phases. No sooner is it killed in one form, than it rises in another guise more specious than before.—One theory which quack doctors most make use of is, that all diseases arise from impurity of the blood—if we can only purify the blood, all diseases will disappear. This is beautiful in theory, and takes readily with the ignorant and easily gullible. The only objection to it is, that it has not the least foundation in fact. If any man, whether calling himself a physician or not, talks about *purifying the blood*, it is safe to set him down as a humbug of the rankest kind. Some weeks ago we saw a long article in the N. Y. Tribune, recommending the root of *Veronica quinquefolia*, as a grand panacea for scrofula in all its forms. We felt grieved to see such a quackish article in so widely circulated a paper, but let it pass unnoticed. Now that we see in our esteemed cotemporary, the Rural New-Yorker, another article by the author of the one which appeared in the Tribune, we feel called upon to expose the thing. On reading these articles we, of course, suspected that there was a cat hidden under the meal, and upon making an inquiry, we ascertained that the writer of the articles was selling the root at three dollars an *ounce*, or two ounces for five dollars. The price of the article in the New-York drug and herb stores, is less than one dollar a *pound!* The editors of the Tribune and Rural New-Yorker, have unwittingly allowed the use of their columns to aid a private and extortionate speculation. It is a sort of spasmodic revival of an old thing which has been before the public in one way or another for the past 20 years. The medicine in question is the root of a plant, the proper botanical name of which is *Veronica Virginica*, and has been called *Leptandra Virginica*, and *Veronica quinquefolia*. The common name is Culver's Root, and it is sometimes called Indian physic. Though not very common around New-York, it is abundant enough through the West.

In regard to the medicinal qualities of the plant, we have only to say, that it is much used by the so-called "herb doctors," and it possesses powerful cathartic and emetic properties. We judge it to be altogether too active an agent to be used unadvisedly. If one is ill enough to require a medicine of this kind, he is in a condition to need the advice of an intelligent physician. We are decidedly opposed to indiscriminate dosing, hence we exclude from our columns all advertisements of patent or quack medicines, although people who have these to sell, can, from the large profit they make, afford to offer very high prices for advertisements.

We find by an occasional advertisement in some journals published at distant points that

"Dr. James, a well-known retired physician, discovered, while in India, a sure remedy for Consumption, Bronchitis, Colds, etc. To help suffering humanity the recipe will be sent for 2 stamps to pay expenses."

He may truthfully say he is well known. His plan of operations, and that of many others of his class, have been repeatedly exposed in these columns and elsewhere. Upon applying for the remedy you will receive a pamphlet recording marvelous cures, with the information that you can best procure the prepared remedy by forwarding a dollar or more to him, or his agents, and upon taking said remedy you will discover that both it and yourself have been sold, and that the advertiser has made all the profits. A correspondent inquires how such parties obtain the addresses of private individuals at distant points, to whom they mail their circulars, pamphlets, etc. In various ways. Sometimes by means of the postmasters; but usually from parties that make a business of collecting names by agents in the various towns. For a consideration, these parties will address circulars to any part of the country.

One of the most prevalent methods of swindling now in vogue, is seen in the following advertisement which with others of the same import, has recently appeared in some City papers.

"The undersigned will for one dollar send private instructions to any party, how he may escape the draft without risk, at a cost of only 37 cents."

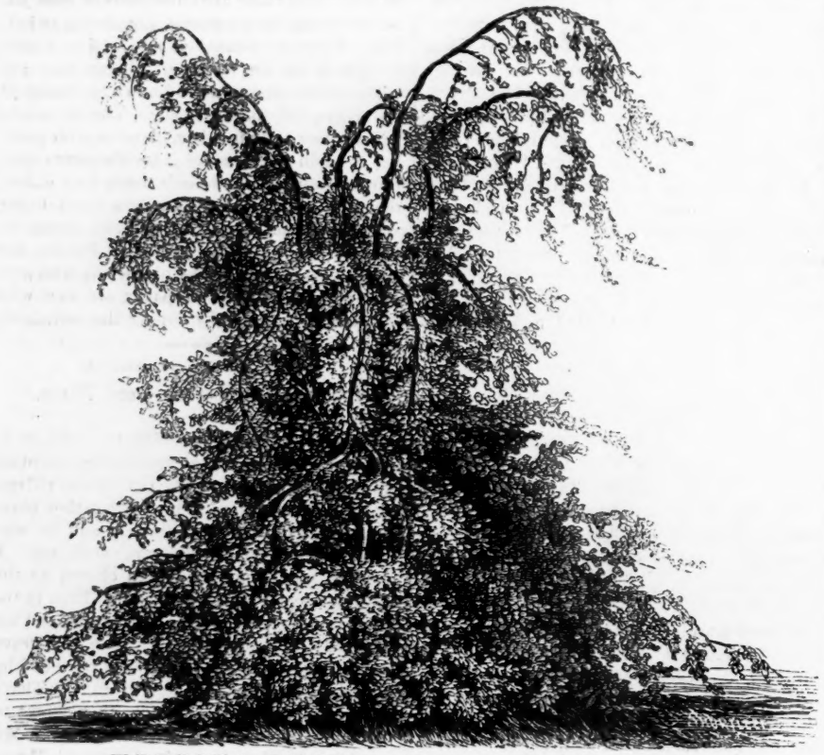
From appearances, this advertiser will reap quite a harvest from the cowardly renegades who are willing to enjoy the benefits of a good government, and are unwilling to give their services for its maintenance. Perhaps it is as well to allow such to send their dollar and find that their pusillanimity costs more than courage would do. We have little sympathy for *them*, but we are not willing that scoundrels should fatten even at their expense, and therefore give notice that any party advertising that he can give exemption from military liability by any device, by false certificate of physical weakness or otherwise, is a swindler. We would also hint to the said advertisers, that the Provost Marshal is on the track of some of them, and that they are liable to a draft which will entail harder service than even the military are usually called upon to perform. The penalty for interfering with, or in any way discouraging the procurement of men for the army, is, as it should be, proportioned to the enormity of the offence.

There are a few distinguishing marks by which one may, with great certainty, distinguish between legitimate advertisements of *bona fide* concerns, and the schemes of plundering swindlers. When a "secret" of any kind is advertised, look out for humbug. Honest men are willing at the first to make known the nature of the articles they offer for sale. The old adage "Never buy a pig in a bag," applies with peculiar force to such cases. Advertisements that promise more than a dollar's worth for a dollar, that offer to ensure a fortune or a good living with little or no capital, and without much labor, are traps for the unwary. Finally the whole class of advertising physicians who perform wondrous cures on paper, are men who seek to gain a living by duping the credulous.

For the American Agriculturist.

Country Cemeteries—Good Hints.

Some time ago I was riding to a village in one of the Western States, and had my attention called to the cemetery just outside the village, by the exclamation: "That's where they plant 'em." Indeed, from the cemetery and its surroundings, the remark did not shock me. A desolate, sandy knoll had been chosen as the last resting place of those who had lived in the village. Its scanty growth was cut off, and the stumps stood more numerous than the grave stones; and to crown all, it was surrounded by a wooden fence, painted bright *red*. "That's where they plant those whom they expect to bloom in immortality," said I to myself. My mind wandered to the quiet beauty of Mount Auburn, Swan Point, and Laurel Hill, and to the charming and commanding views of Greenwood, and I thought that we of the cities "planted" our dead in more attractive spots. Having travelled largely through the country, I have been exceedingly pained at the general desolateness of the village cemeteries. Why is it not just as easy to choose for them a pleasant place, as a cheerless one? It is a melancholy satisfaction to most of us, to visit the last resting place of those who were dear to us in life, and, though it will make little difference to those who lie there, it is vastly to the comfort of surviving friends that they can go to a pleasant and attractive place to see all that earth has left of those dear to them. To sensitive minds it is a horrible thought that their bodies shall be laid in the bleak cold grave-yard; if they could know that they should be buried in the shade of trees, and that flowers would bloom around and birds sing above their graves, death would lose many of its terrors. I am far from justifying this feeling, but we know that it exists to a great extent. I would, through the widely circulated *Agriculturist*, call upon the influential men in every town and village, to see that their cemetery is made an attractive place—one where the living can cheerfully hold silent communion with the departed, a place which will show to strangers that the dead are not merely "planted." A few people of taste and energy can in any community effect a reform in this matter. The most beautiful cemetery that I know of owes its existence to my old schoolmaster. There is one thing which I would have changed in all cemeteries; that is the placing of fences around private lots. It breaks up the general design, and gives a formal and gloomy aspect which should be avoided. Death levels all distinctions, and if it is necessary to designate between mine and thine, even in the grave-yard, it can be done by small corner stones which will not obtrude themselves unpleasantly upon the visitor. T. G.



WEEPING BEECH—AT FLUSHING, N. Y.

Sketched and Engraved for the American Agriculturist.

The Ornamental Varieties of the Beech.

The European and our native Beech are so nearly alike, that some botanists have considered them as the same species. There is a slight difference in the shape of the buds and leaves, but they so much resemble one another in form and habit, that for the purposes of planting as shade trees, they may be considered as identical. We have often wondered why the beech was so much neglected in tree planting. It may not have the grace of some other trees, but for affording a perfect shade, no tree is equal to it. Another thing which commends it, is its cleanliness and general freedom from the attacks of insects; and besides, its foliage remains in Autumn much later than that of other deciduous trees. Many of our readers will recollect some particular beech tree whose cool shade was a favorite retreat in their boyhood, and where enjoying the shelter that it afforded, they whiled away the sultry hours of a summer's afternoon in carving some favorite name upon the bark, which offers a tempting surface to the knife. The European Beech has made several accidental sports which have been propagated by grafting, and are now very generally distributed. One of the oldest of these is the purple beech, the original tree of which was discovered in Germany in the last century. The young leaves are of a cherry red, but as they grow older, they become darker, and eventually are of so deep a purple as to give the tree, among the French, the name of black beech. The purple beech in Spring is a very attractive object; the young leaves when agitated by the wind, during bright sunshine, make such a brilliant show as to give the tree the appearance of being on fire. The seeds of the purple beech have produced many colored varieties; the best known of these is the Copper beech, which has lighter colored foliage than its parent. Both these sorts are desirable in a collection of ornamental trees.

Fig. 2.—CUT-LEAVED BEECH.

Another and very interesting variety of the beech is the cut-leaved or the fern-leaved, in which the foliage is variously divided and in some forms even shredded. Figure 2 shows one form, but there are others in which the divisions are much finer. This is a most graceful foliage, and the tree is worthy of being planted much more frequently than it is. Mr. Sargent, the well-known writer on landscape gardening, says, if he could have but six ornamental trees, the fern-leaved beech would be among the first he would choose.—Many forest trees have produced seedlings, the branches of which have a drooping or pendulous form; these are commonly called "weeping" trees, and we have weeping varieties of the elm, ash, birch, beech, and many other trees. None of these weeping trees are more beautiful than a well grown *Weeping Beech*. The original tree was found in the grounds of an English Park, and it has been propagated by grafting, and is now not very rare in this country, though not nearly as well-known as it should be. The finest specimen within our knowledge is in the grounds of Messrs. Parsons & Co., at Flushing, N. Y. With the hope of bringing this most graceful tree to the notice of those about to plant for ornament, we have had the specimen drawn and engraved. [The artist sent specially to make the sketch for us, has failed to represent the real beauty of the tree; it has a heavy, thick, dark foliage, and every branch and leaf should have been represented as pendulous—hanging almost perpendicularly downward—the upper branches less spreading, and turning in a short curve, and the lower ones thickly massed, and gracefully drooping their ends to the earth.] Always attractive, it is toward sunset that this tree shows its beauty most strikingly; then the pendulous branches throw deep shadows, and the whole tree is a picture of light and shade worthy of the study of an artist. For small places and for situations near the house, no tree presents more desirable qualities than the weeping beech.

Tall Trees—The Douglass Fir.

Many of our readers will remember an account published in the *Agriculturist* some time since, of an enormous flagstaff sent to England from Oregon. The gentleman who presented it gives the following interesting particulars concerning the growth of trees in that State, which we find in the London Agr. Gazette

"Douglas Fir, better known in this part of the world as Oregon Yellow Pine, is generally from 200 to 300 feet high, frequently 150 to the first branch; has a corrugated bark on a full-grown tree, 6 or 7 inches thick; sapwood, 2 to 3 inches thick; roots spread over a large extent of ground, but no tap root, or root growing from the center downward. The largest tree that I have had cut, was one measuring 9 feet at the but, including the bark, and 306 feet from the but to the top; it squared, clear of sap, at 45 feet from but, 40 inches; it was cut at 130 feet, this being the proportion of length to diameter of a mast, for which purpose I sent it to England in 1858. One great advantage the Douglas Pine (generally so called in England), has over all other trees, is the very little taper I have seen trees in which at first you could not tell the top from the but—I mean trees cut for masts of 100 to 130 feet long. For all purposes this is an advantage, inasmuch as the tree contains more timber, but for ship masts this is an invaluable quality. I have recently built a vessel of 200 tons, and no other timber but Douglas Pine was used in her construction.

"Spruce is plentiful, but less abundant than Douglas Pine; it is closer grained, and I think better timber than the same wood of Canada; grows to about 200 feet high, and fully as great diameter as the Douglas Pine; the roots furnish knees for ship-building purposes, which I consider equal to Oak.

"Hemlock is not held in much repute here. I have only seen it used for wharf piles. It is plentiful and grows to a hight of 150 to 200 feet.

"White Pine is very scarce here, consequently very valuable, as it is almost the only wood we have fit for joiners' fine purposes. It grows about 200 feet high; 40 inches is a large tree,

"Red Cedar has generally a short trunk, with large spreading branches. When it can be found clear of knots, it is as valuable as White Pine. The Indians make their canoes from this tree, hollowing it out; many of them convey 50 to 60 men, and the most perfect models of the clipper I have seen. I consider the Cedar the most ornamental tree I have met with. It is generally found near the water, or, I should rather say, grows larger near the water, and on swampy ground; but I have found it in the interior of this island, near the lakes on the side of the ris-

ing ground. Here it grows tall like the White Pine, and seldom exceeds 30 inches in diameter, 60 to 80 feet clear of knots, and not hollow, as generally is the larger short-trunked tree of the same name."

Half Hardy Trees and Shrubs.

Were we to speak our whole mind on the subject, we should confess that we grow more and more inclined to discard the tender things, and to plant only such as are as tough as oaks or burdocks. Yet, on the whole, we must say, not so; for if we did, we should exclude many very fine trees and plants, and lose much of the *variety* which now gives our grounds a great charm. How, then, to manage them well?

The notion prevails with many, that such vegetation should be planted in sheltered spots, (say on the south side of buildings, high fences, etc.) and in rich soils. But this is a great mistake. When so planted, the wood is stimulated into a rapid and a late growth, which can not ripen up hard and dry before the Winter sets in. The consequence is that this soft, sappy wood is frozen to death. Rather, choose an open, breezy aspect, exposed to the North and West.

The soil should not, indeed, be so barren that the tree or bush will be kept in a feeble, half-starved condition. If so, the Winter will destroy it, of course. Nor should it be deep and rich, for this will induce too rampant a growth. Let it be of moderate fertility, and dry, rather than wet. And, as we would not choose the top of a bleak hill, so we would avoid a low, moist valley. By a little considerate management of this sort, we shall be likely to get a moderate and healthy growth of plump, short-jointed limbs, which will be quite sure to ripen off well before hard frost.

If, on the setting in of December, we can give our half-hardies a little protection on every side, using, perhaps, a few evergreen boughs, it will be a good thing. Drive stakes on every side firmly into the ground, and then tie the boughs to these. This will make a nice little local climate, for which the pet will thank you. A friend of ours in central New-York succeeds well with the *Rhododendron Catawbiensis*, by planting a circle of white pines (any evergreen would do just as well) and setting his plants in groups in the centre. This screens them alike from sun and cold winds. Without some such screen, they are likely to suffer there.

Our Neglected Native Forest Trees.

An experienced and observing botanist once made the remark in our presence, that there was not a single American tree in any park or public square in the City of New-York. Since the creation of the Central Park, this remark does not hold true, but it expresses the fact as respects all the other parks in New-York, and may be extended to apply to most of the private grounds within our knowledge. In planting trees we have run too much after those of foreign origin, to the neglect of American trees. While we will not deny that many of our imported species are every way desirable, we at the same time maintain that we have those of American origin which are equally as good. Our people who plant trees, only know that they want rapidly growing ones, which will make a shade as soon as possible, hence they generally state the number of trees they require, and leave the selection to the nurseryman, who, naturally enough, supplies those which cost him the least trouble to produce, and of which he has an abundant stock. In this way only can we account for the constant sameness in the kinds of trees, whether in our streets, public parks, or private grounds. Our American trees are highly prized in Europe: we have a friend who annually sends hundreds of pounds of the seeds of our common trees to the nurseries of France. The seeds of our native trees are generally much more difficult to find in commerce than are those of European trees, and this may be another reason why our nurserymen raise so much more foreign stock. Some try our native forest trees by taking seedlings from the woods and transplanting them to their grounds. This method is sometimes successful, but more frequently fails. The one making the attempt is disgusted

LEAF OF LIQUIDAMBAR.

at the failure, and sends to the nursery for foreign trees, which grow well, and he comes to the conclusion that wild trees can not be cultivated. Now if the American trees had been grown from the seed and treated in the same way as the exotic ones, i.e., transplanted several times, he would have had no difficulty. Herein consists the main difference between trees taken from the woods, and those from the nursery. In one case they have some large main roots and few fibrous ones, while in the other case, the trees have been transplanted several times and have thrown out numerous small roots. In one case the removal is a great shock to the tree, and in the other, it is prepared for, and is but little affected by it. Most persons would be astonished to see how few years it takes to raise a good sized forest tree from the seed. Those who have large places should always have a small nursery of forest trees from which to draw as the occasion may demand. Seeds may either be planted as soon as they fall, or be kept through the winter in boxes of earth, and then sown. The seedlings generally need a partial shading during the first year of their growth, and after they have grown two years in the seed-bed, they may be transferred to nursery rows, and when they begin to crowd one another, they should be again transplanted to other rows. Treated in this way, most of our forest trees will form fibrous roots and may be used for planting with probability of success. Among the less cultivated of our native trees, and indeed but little known in the wild state, is the Sweet Gum, *Liquidambar styraciflua*. Downing, who had such a correct eye for the beautiful says: "We hardly know a more *beautiful* tree than the Liquidambar in every stage of its growth, and during every season of the year. Its outline is not picturesque or graceful, but simply beautiful, more approaching that of the maple than any other; it is, therefore, a highly pleasing, round-headed or tapering tree, which unites and harmonizes well with almost any others in composition; but the chief beauty lies in the foliage. During the whole of the summer months it preserves, unsoiled, that dark glossy freshness which is so delightful to the eye; while the singular, regularly palmate form of the leaves, readily distinguishes it from the common trees of a plantation. But in Autumn it assumes its gayest livery, and is decked in colors almost too bright and vivid for foliage, forming one of the most brilliant objects of American scenery at that period of the year. The prevailing tint of the foliage is then a deep purplish red, unlike any symptom of decay, and quite as rich as is commonly seen in the darker blossoms of a Dutch parterre. This is sometimes varied by a shade deeper or lighter, and occasionally an orange tint is assumed. When planted in the neighborhood of our fine maples, ashes, and other trees remarkable for their autumnal coloring, the effect, in a warm, dry autumn, is almost magical. Whoever has travelled through what are called the pine barrens of New-Jersey in such a season, must have been struck with the gay tints of the numberless forest trees, which line the roads through those sandy plains, and with the conspicuous beauty of the Sweet gum, or Liquidambar." The bark of this tree when full grown, or nearly so, is exceedingly rough and furrowed, like the oak. The wood is fine-grained, and takes a good polish in cabinet work, though it is not so durable, nor so much esteemed for such purposes, as that of the Black walnut and some other native trees. The average height of full grown trees is about 35 or 40 feet. The engraving gives the peculiar form of the leaves. An abundance of seeds are produced, though but a small portion of them are perfect. It is readily raised from the seed, which may be had at the large seed stores, and trees suitable for planting may be procured at the nurseries.

Experience with Scale Lice.

O. F. Meyer, Rock Co., Wis., writes as follows: "In June *Agriculturist* you ask for information about the destruction of the bark-louse on apple trees, and here is my experiment and success. Two years ago I moved into my place, which I had formerly occupied and then let out. I had planted, when I first lived there, eight apple trees, one 15 years old, and some wild crab apples were on the ground, also a few plum trees. During the time I let the place out, everything was neglected; the weeds were almost as high as the young trees. My first work was to get rid of the weeds, and then I discovered that all the trees, wild and cultivated, were literaliy covered with the scale louse, and the same was the case with the currant bushes. My neighbors said, I could not do anything with the trees, but to cut them down, but I thought it worth trying to save them. In February I scraped the trunks and twigs of the trees as far as I could reach them; in April, I washed them with soft soap, ashes, and a little salt, which I applied pretty thoroughly with a brush. This I repeated in June, and pruned the wild apple trees at the same time. This Spring the same process was gone through with, and now one must look pretty sharp to discover a louse.

It is not strange that owners of orchards complain about this insect at the West. Most men

plant the trees and think that sufficient. I see here many a fine apple tree which would yield a handsome profit to the owner, if it were only treated right. There is no question that grapes and other fruit will grow finely at the West, if proper attention and care be given them."

A Horticultural Exhibition.

We would remind all growers of fruits, flowers, and vegetables, within reach of New-York City, that there will be an exhibition of horticultural products during the last week of the fair of the American Institute. The articles for the horticultural exhibition must be at the Academy of Music, 14th-street, before noon of Wednesday, Sept 16th. Liberal premiums are offered and we trust that there will be a general display. It is some years since we have had an exhibition that at all represented the horticultural capabilities of New-York and its neighborhood. We hope that our cultivators will this time appear not only as spectators, but as exhibitors. There are some things in the premium list which we would like to see altered. Thus low premiems are given for Quinces and Cranberries—fruits that need especial encouragement—nor do we think sufficient attention has been paid to garden vegetables. Squashes and Pumpkins, which are produced with comparative ease, have special premiums, while Cauliflower, Egg plant, Endive and other things, which require the best skill of the gardener, are not noticed in the prize list. We do not mention these things in a fault finding spirit, but as hints to be considered another year.

For the American Agriculturist.

New Lawns.

The soil should be made deep at the outset. If the land is poor, a coat of old manure should be turned under. This will prevent the drying up and burning out of the grasses in mid summer, as it will cause the roots to strike deep for nourishment, and will furnish them the food they need. After the plowing, harrow smooth, sow the seed, brush it in, and afterward roll it. Cultivators are not perfectly agreed as to the best grasses for lawns. Some advise the sowing of only one kind of seed; others favor several. In some of the finest bits of *natural* lawn which we have noticed by the road-side, we have counted several sorts. Kentucky Blue Grass is a favorite in some quarters; others prefer Red Top. In the writer's experience both have done well; the Red Top was mixed with a little sweet scented vernal grass and white clover.

It is a question with some whether the grass should be sowed by itself, or with some other crop, as oats, barley, or rye. For lawns of ordinary size, we would recommend to sow the grass by itself, and to sow liberally enough to cover the land at once with grass. It is also a question whether lawns should be mowed the first season. English cultivators say Yes. This practice may answer well for the British climate, but not so well for ours. We have seen many a new lawn injured by too early cutting. To stand well, grass needs time to form large, vigorous roots, and to strike them well into the earth, but this they can not do if the tops are cut off in mid-summer. All that is taken from the top is so much lost to the roots. In the second and following years, when the roots become strong and well established, the mowing may be frequent. The first year, we would simply pull out weeds, and leave the grass to rot on the surface in Fall and Winter. *

[Our own preference is for one kind of grass, as this gives a uniform growth. After trying several kinds, successively, and in a mixture, we have settled upon the Kentucky Blue Grass as just the thing for our locality. It is perfectly hardy, and though starting slow the first season, it eventually makes a firm, compact, even, velvety sod, that will endure hard freezing even under water. We sow the seed very thickly to start with—at least 3 bushels to the acre.—ED.]

The Yeddo Grape.

There has been so much interest felt in this grape and its introduction to this country has been so much desired, that a description of its habit and growth will doubtless interest our readers. The first account we have of it, is from the pen of Robert Fortune, the well known Chinese traveller, and was published in the Gardener's Chronicle for April 27, 1861. He says: "The vine of this district, which we may as well name at once the "Yeddo Vine" produces a fruit of great excellence. The bunches are medium sized, the berries are of a brownish color, thin-skinned, and the flavor is all that can be desired. This grape may be valued in England, where they have so many fine kinds, and most certainly will be highly prized in the United States of America. A few years ago, I was travelling from Malta to Grand Cairo in company with Wm. C. Bryant, the celebrated American Poet, and a genuine lover of horticultural pursuits. This gentlemen informed me that owing to some cause, our European vines did not succeed much on the other side of the Atlantic, and suggested the importance of introducing varieties from China, where the climate as regard extremes of heat and cold is much like that of the United States. I have never met with what I consider a really good variety of grape, and therefore have not been able to act on Mr. Bryant's suggestion. At last, however, we have a subject for the experiment, and I urged its importance on Dr. Hall, who is an American citizen, and who has already introduced a number of plants to his country from China. He enters warmly into the matter, and no doubt will accomplish the object in view. I therefore conclude this by giving notice to your readers to look out for the arrival of the "Yeddo Vine."

The above is an account given by the celebrated Mr. Fortune, a perfectly disinterested witness. Knowing that Messrs. Parsons & Co., the well known nurserymen at Flushing, L. I., had received from Dr. Hall a specimen of this vine, we have requested them to give us their experience with it. They write as follows:

"We at once grafted it upon a strong native vine, and planted it in a good soil. During the last Winter it was covered with straw, and up to this time, its growth is very remarkable, and scarcely surpassed by any of the native sorts. The main stem is as thick as a man's finger and from it proceed four strong branches, seven and eight feet long. By Autumn they will probably be twelve or fifteen feet. The leaves resemble those of the Delaware, while the stem is unlike any other grape known. The vine will be left entirely exposed the coming winter—it was too small to be exposed the past winter. There is every reason to suppose it will be perfectly hardy, because nearly all the plants which have hitherto been introduced from Japan, have proved hardy in our climate. The interest now felt everywhere in grape culture, gives additional importance to the introduction of this grape, and should it prove all we hope, Dr. Hall will have rendered a great service to his country."

Notes on Strawberries—Mulch them.

While in most locations the Triomphe de Gand sent out by us, has proved an abundant bearer, we occasionally hear complaints that but little fruit is produced. It would be strange if a strawberry of European origin should prove to be perfectly adapted to *every* locality throughout our extended country. Let any one look over the transactions of the American Pomological Society, and he will see that fruits, such as apples, pears, etc., which stand high in one region, are unsuccessful elsewhere, and are condemned for general culture. It is so with strawberries; their fruitfulness is affected by local influences, and it is only by experience that we certainly can know a variety will succeed in a particular place. Horticulture learns as much from failures as from successes. With the great number of fine sorts of strawberries we now have, there is no doubt that some good variety may be found which will succeed in each locality. With regard to the Triomphe de Gand, we believe it to be the best strawberry for general culture yet introduced. It may fail in some localities, but we have had nothing thus far that has proved so *generally* satisfactory. Some persons have made a point of the fact that it is condemned in Europe. True, but it is there rejected for the very qualities which render it desirable here. It is the only one of the European varieties which has attained a general success in this country. On the other hand our favorite kinds, originating here, have failed in Europe. With strawberries, we must judge as we would of other fruits, by their merits in our own particular region. We have sent out the Triomphe de Gand, as the most promising sort known, and have seen no reason to regret it. There may be failures and probably will be. Where it does not succeed, the person who really wishes strawberries, will try other sorts until he finds one which will do well with him. Many try a single kind and finding that will not grow, give up the cultivation altogether. If they would only communicate the fact of their failure, and give the public the result of their experience, they would do a good service to all in their vicinity. We hope to make strawberries as common in every family, and as much a matter of course, as potatoes, and we give from time to time such advice as our knowledge warrants. Let those who have facts, showing either success or failure, communicate them in order that their experience may benefit others. We commenced this article for the purpose of calling attention to mulching. There is very often a drouth just at the time that the strawberry is setting its fruit. In large beds it is impracticable to water them, and the only way to prevent the earth from drying is by mulching. In the Fall, after growth has ceased, cover the bed with straw. In the Spring when the plants start, uncover each crown, but leave the straw in its place. This will keep the ground moist during early drouths, and keep the fruit clean. After the berries are picked, the straw may be removed.

STRAWBERRY ITEM.—I. G. Hiler of Boston, Mass., in renewing his subscription for next year, to be sure of the "*Agriculturist Strawberry*," writes: "An article in your paper three

years since determined me to have a bed of strawberries. I immediately set a bed 30 feet long by 7 feet wide, with Early Virginia Scarlet (which I consider a humbug), Cutter's Seedling, and Bunce's Seedling, and kept them in rows, with *no runners*. I manure in early Spring, and after the crop is gathered, with Coe's Superphosphate. Last year I picked 50 quarts of berries, and the same this season, though the dry weather diminished my crop at least one half. I counted 180 berries on a single stool of the Bunce variety, and many other plants were equally loaded."

Starting Strawberries in Pots.

Strawberry plants, if well rooted in pots in July or August, may be put out in beds any time before the ground freezes and produce a fair crop the following season; the earlier they are put out, the better of course, as it gives a longer time for the plants to grow, and form large crowns, which will throw out a number of fruit stalks the next season. One advantage of setting out plants rooted in pots is, that they rarely ever fail to grow, and consequently need not to be replanted, which involves considerable time lost in the actual growth of the plant, besides the trouble of replanting, watering, etc. Another object gained is, that they rapidly advance in growth, and are not put back by transplanting, which is always the case with those planted in the ordinary way; nor are they so much affected by drouth. The greatest advantage is, that while those planted in the ordinary way produce little fruit the next season, except under very favorable circumstances, those in pots yield a fair crop, and more than repay the extra labor in the greater amount of fruit. Mr. C. S. Pell, of the N. Y. Orphan Asylum, starts strawberries in pots very successfully. He takes three inch pots, fills them with good soil, and places them in the strawberry bed—one under each joint on the runners—and small stones are put on to hold them in place. The earth in the pots is well watered and in about three weeks he has strong, well rooted plants, which may be turned out into the ground without checking the growth. If the pots are sunk in the soil of the bed, the earth will not dry out so fast and less water will be required. This plan offers many advantages to amateurs and cultivators on the small scale, or for home use.

Protect the Fall Flowers.

It is often trying to one's patience to have the frosts come and smite our splendid collections of flowers in the very hight of their glory. In many cases, as with the Asters, Stocks, Balsams and Dahlias, we have watched and nursed them all Summer, and now, just as our care is beginning to be rewarded, suddenly, in a single night, the destroyer comes and blasts all our hopes! Last Fall, the writer tried an experiment to protect flowers several weeks, and succeeded so well that he is moved to speak about it. Just before frosts were expected, we provided a few light mats, made of sacking, and by driving down several stout stakes at the corners and middle of each bed, were enabled to suspend them over the flowers without crushing them.

Every observer must have noticed that we usually have a few sharp frosts early in Autumn, cutting down all tender things, and then that this is followed by several weeks of warm weather. Whatever plants go through the first frosts unharmed, bloom finely for quite a period afterward. The use of these mats or something of the kind, answers this very end. It takes only a few minutes at night to spread the mats in their place, and a few in the morning to lay them aside. But were the labor much greater, the result would amply repay it.—*Agriculturist.*

Seed Saving.

This is the month in which much of this is to be done, both in the Kitchen and Flower Garden. We have frequently impressed upon our readers the importance of saving the very earliest and very best of every variety for seed. Do not pick all the best Sweet Corn, Tomatoes, Melons, etc., for the table, and take seeds for the next crop from what is left. If this be done, we shall have more complaints about sorts running out; they will run out if you help them to do so, but will hold good and even improve if proper care is exercised in seed saving, We know of one variety of Sweet Corn which has been kept in the same family for thirty years without "running out." Some flower seeds require much care to save them. If seeds from Pansy and Phlox are left until the pods are quite ripe, they will all be lost by the bursting of the pods. With plants having seed vessels of this kind, the best way is to pick the flower stems when the seeds are fully formed, but not ripe enough to burst. Placed in a box or on a large sheet of paper in a dry room, they will fully mature, and the seeds may be secured.

Fuchsias in Winter.

A lady subscriber wishes to know why her Fuchsias do not bloom in Winter. The reason is, that it is a summer blooming plant, and they flower so profusely in Summer, that they need a long season of rest. A Fuchsia may be kept during the Winter and an occasional flower be produced, but there are so many freer blooming house plants that it is altogether better to use the Fuchsia as a summer bloomer and give it rest during the Winter. With a green house, young plants can be grown so as to bloom in Winter, but for parlor culture it is best to keep the plants in a state of rest from Fall until early Spring. Then they may be pruned into shape, and brought forward to flower during late Spring and Summer. They do capitally as bedding plants, provided they get a partial shade. Among the new varieties we have found the Comet one of the most valuable.

Prepare for Spring Flowers.

Nothing gives more gratification than the early flowering spring bulbs. These are usually classed under the general term of "Dutch Bulbs," for the reason that they are largely grown in Holland, whole farms being devoted to their culture. This class of plants comprises the Hyacinth, Tulip, Crocus, Narcissus, and numerous others. Dealers are already out with their catalogues for the Fall trade, and it will soon be time for our readers, who intend to plant bulbs, to prepare their ground and select their varieties. If we could have but one spring flower it would be the Hyacinth, so charming in both color and fragrance. To those who can procure them, we say, make a bed of Hyacinths this Fall. A single one, if no more can be had, will be a charming thing in the garden next Spring, but a bed of them is a mass of sweetness and beauty good enough for any one poor mortal to possess. This last Spring we saw upon the grounds of Mr. Buchanan, at Astoria, a bed about 8 feet wide and 20 feet long, filled with gorgeous blooms of every shade of color. It was certainly worth going far to see.

Then there are Tulips, less sweet and more gay, and Crocusses which so early in Spring lift up their spires of tender green, and then, before we are aware of it, throw out their delicate flowers. Snow Drops, Ixias, the various Lilies, the stately Crown Imperial, and many others, all come under the head of "bulbs," and are to be planted in the Fall. A rather sandy piece of ground does best, which should be enriched by spading in well-rotted manure. The bulbs should be planted in October, rather deeply, Hyacinths and other large bulbs should be put at least 3 inches deep, and two inches is little enough for Crocuses and other small bulbs. In planting, if the colors of the flowers are known, very pleasing effects may be produced by making contrasts of color. Before the ground is frozen, cover the bed with a good coating of stable manure,—no matter if it is coarse. When Spring fairly opens, the manure may be raked off. The bulbs will live year after year, but better flowers will be produced if they are taken up every season after the leaves wither, and allowed to dry until the proper season for setting them out. Most of the bulbs produce a better effect when grown in masses than when scattered through the borders.

Living Window Screens.

A mass of green foliage makes a prettier window screen than any of the costly curtain materials, or those gaily and coarsely painted shades used very generally throughout the country. Whether seen from within or without, they are always in good taste, and lend beauty to the most costly dwelling, and give an air of refinement to the humblest one. The plant best fitted for this purpose is the European Ivy. It is an evergreen with rich dark foliage, grows with tolerable rapidity, and is perfectly hardy. Wherever Ivy is grown out of doors, natural layers may be found already rooted, or it may be readily started from cuttings. It needs a good rich soil and plenty of moisture, but the pot should be well drained. A good way is to fit a moveable shelf to the window sill, and erect upon that a trellis of sticks and wire of such size and shape as suit the fancy. One or two pots of Ivy may be placed upon the shelf and the vines trained to the trellis; this will allow the whole to be moved as occasion may require and it may be placed out of doors during Summer. If placed at a window where the sun is too hot, a simple screen of muslin may be let down between the plant and the glass during the middle of the day. An ornament of this kind costs but little, will last for years, and always be beautiful, A broad leaved variety of Ivy, called Roegneriana, is one of the best for this purpose. A plant is very commonly used around New-York as a window plant under the names of Mexican and German Ivy. It is not an Ivy, but is a climbing species of Groundsel (*Senecio mikanoides*), and every way adapted for forming window screens. It is of very rampant growth, and needs frequent pinching to keep it within bounds. It roots with the greatest ease—any piece of stem with a leaf to it will make a plant. Unfortunately it is not generally distributed, but it may be had at the city green houses, and must soon be widely diffused.

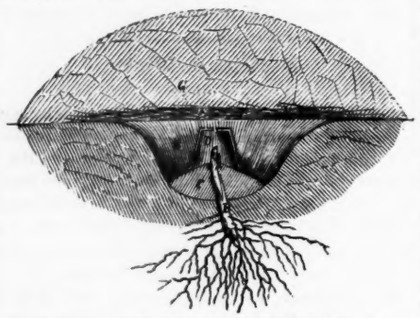
Abutilon Striatum.

The Striped Abutilon has long been a favorite of ours. It is almost an ever-blooming plant—good in the house in winter, and a very conspicuous ornament when planted in the grounds. It is a green-house shrub, which will well repay any care that may be given it in Winter, and if put out of doors and left to itself during the Summer, will make a fine growth and give an abundance of flowers. One of its best qualities is the ease with which it is propagated. Cuttings stuck out anywhere, if not constantly exposed to the sun, will grow; they may be propagated in quantities by the method recommended for cuttings in the August *Agriculturist.* The plant has a striking foliage, somewhat like that of the maple. Its flowers are bell-shaped and of a yellow color, strongly veined with scarlet. The pendulous character of the flowers, hanging from long slender foot-stalks, gives them a remarkably graceful character. The plant bears pruning to any extent, and may be grown as a bush, or be trained to suit the fancy of the cultivator. We know of no plant that will give more satisfaction as a parlor plant, than the *Abutilon striatum.* Our engraving will give a good idea of the leaf and flower. The plant may be had at the green-houses, and is frequently for sale in the N. Y. markets in the Spring. *Abutilon venosum*, and *A. insignis*, are fine species, but they require more care than the *striatum.*

Grafting the Grape Vine.

We mentioned in our last number that a new work on grape culture was in preparation by Mr. A. S. Fuller of Brooklyn. In looking over a portion of the manuscript the following remarks upon grafting the vine, struck us as being novel and interesting, and we asked Mr. Fuller's permission to give them to the public in advance of the appearance of his work:

"The propagation of the Grape vine by grafting, is probably as old as its cultivation, and many of the modes practised at the present time, are accurately described in most of the ancient works on gardening and agriculture. But with all the information which we have derived, from both ancient and modern authors, it still seems to be generally considered a rather difficult if not uncertain method of cultivation. On account of the peculiar structure of the wood of the vine, a lasting union is seldom obtained when grafted above ground, and is far from being certain, even when grafted below the surface by the ordinary method. When we compare the benefits to be derived from grafting the vine, with grafting the pear, apple, etc., it appears to be of little value, because the vine may be readily grown from cuttings of almost any portion of the wood, while the latter produce roots from cuttings only sparingly, even with the greatest care, and under the most favorable circumstances, but they may be propagated very easily by grafting and budding. Thus it appears that nature has provided a way for the rapid multiplication of every species and variety of plants, but she has left it to man to discover the way and means. There are circumstances constantly occuring under which it would be quite desirable to graft the vines; for instance, when we have a new and valuable variety, which we wish to multiply as rapidly as possible; to do this we must produce wood for the purpose, and if we can produce wood more rapidly by grafting than by any other means at command, then it becomes very important to know how to perform the operation successfully. There are usually in every garden where grapes are grown, inferior varieties which it is desirable to exchange for better, and if we employ grafting as a method of propagation, then these otherwise worthless vines may become valuable as stocks on which to graft better kinds; and if by the use of these we can make every bud to produce a shoot of from 5 to 20 feet in a single season, of larger and better wood than we can by any other means, and that too without the aid of any artificial heat, it becomes very important to know how to do it. Sometimes it would be desirable to change a whole vineyard from an inferior variety to a new and superior one, and if the operation is judiciously performed, it can be successfully done, but I will consider this further on. The time generally selected for grafting the vine, is early in Spring, before the vine starts, or after it has started and made a growth of a few inches; both of which I have found highly objectionable; for if grafted early, the operation must be performed several weeks before the vine starts, so as to allow the graft sufficient time to form a union with the stock before the latter starts, or else the excessive flow of sap will drown the graft. This early grafting is very difficult in a northern latitude, where the ground thaws out only a very few days before the sap begins to flow. It is always desirable to graft the grape below ground. If we wait until the vine has begun to produce leaves, and the sap has thickened and flows less rapidly, then by cutting down the vine to receive the graft, we give it a severe check, which often destroys it, and if not entirely killed, it is so much injured that it does not afford sufficient nourishment to the graft to produce a very strong growth. Besides, if hot, dry weather sets in, the graft is almost sure to fail. These are but a few of the difficulties that I have had to encounter when grafting at these seasons, and in the ordinary manner. To avoid them, I have practised with perfect success the following method: In the Fall, after the leaves have fallen, and any time before the ground is frozen, say in October, November, or December, varying according to latitude, dig away the soil from around the stock (which may be of any size, from one half inch to two inches in diameter) to the depth of 4 to 6 inches; then cut it off, and split in the ordinary manner for cleft grafting; make the graft of one eye with about 4 inches of wood, and insert it in the stock, being careful to have the inner bark of the stock and graft meet, then tie a piece of waxed cloth about it, so as to hold the graft in its place, and keep out the water; next throw in soil enough to fill up around the graft, leaving the bud just above the surface; then put a flower pot (a box will answer the purpose) inverted over the graft, as seen in the engraving; then bank up around the flower pot to the top, but not over it: now put on some straw (*a*), say 6 inches deep, and cover the earth over all. In this manner the graft is perfectly protected against the frost, and it has all winter to perfect a union with the stock, and by spring it is ready to grow. It should not be uncovered until the cold freezing weather is over. It is necessary that a box or flower pot should be placed immediately over the graft, so that when it is uncovered in spring, the graft will not be disturbed by digging down to uncover it. Grafts inserted in the Fall, in this manner, will make almost as strong a growth as the original vine would have done if it had not been grafted; besides, the operation can be performed at a season when there is usually not so much business as in Spring, and it requires no more skill in its performance than other modes of grafting. When the grafts have made one season's growth, they may be cut down and used for grafts or for cuttings, or they may be allowed to remain until next season, and then be put down for layers."



FULLER'S METHOD OF GRAFTING THE GRAPE.

Laterals on Grape Vines.

Every vineyardist knows that his vines produce in Summer what are known as *laterals;* i.e., branches springing from the axils of the leaves. If they are allowed to have their own way, they sometimes prevent the natural extension of the canes, and fill up the trellis with a showy but useless mass of wood and leaves.

To obviate this, some vine-dressers cut out or pull off the laterals, and they keep up this treatment all Summer long. Is there not a serious objection to this? One office of the lateral is to elaborate and send down nutriment for the infant bud at its base, which bud is designed to be the *fruit bud* of the next year. Now, if we pull off this lateral, we weaken the bud and unfit it for its work the succeeding year; often we cause it to break and send out several weak and watery shoots the present year, and so spoil it for subsequent use. Instead, therefore, of pulling it off, a better way is to pinch off its extremity as soon as it has formed two leaves. If it starts after this, nip off its new growth, and so keep it in check, but do not altogether destroy it. In the Fall cut it off.

Smith thought it would be a fine thing to live in the country. Smith could not get HELP, and as domestic duties began to accumulate and interfere with his ease, Smith set his inventive faculties to work, with the above result.—The contrivance is not patented, but is free for the use of all readers of the *Agriculturist*, for whose especial benefit it was sketched and engraved. We can not speak from personal experience of its perfect feasibility.

Small Leaks in the Household Ship.

A thousand worm holes, that will each admit scarcely a gallon of water during ten hours, will much sooner water-log a ship than a large hole through which is poured in a gallon a minute. In the financial affairs of a family, though the large outgoes may be canvassed and avoided, the whole income may be *dribbled* away, and no advance be made toward competency, wealth, or position. As a rule, the financial success of any family depends more upon the economy of the wife, than upon the earnings or business income of the husband.—Mrs. Haskell, in her recently issued "Household Encyclopædia," throws together some of the small leaks in a household ship, which we copy for a double purpose; 1st, to show the men that their wives have a multitude of cares, of little details, to look after—generally far more items than occur in man's business pursuits; and 2nd, to perhaps in some cases indicate to housewives details that they may not have thought of before:—"Much waste is experienced in the boiling etc., of meats. Unless watched, the cook will throw out the water without letting it cool to take off the fat, or scrape the dripping pan into the swill-pail. This grease is useful in many ways. It can be burned in lamps mixed with lard; or, when no pork has been boiled with it, made into candles. When pork is boiled alone, it will do to fry cakes, if cleansed. Again, bits of meat are thrown out which would make hashed meat, or hash. The flour is sifted in a wasteful manner, or the bread-pan left with dough sticking to it. Pie crust is left and laid by to sour, instead of making a few tarts for tea, etc. Cake batter is thrown out because but little is left. Cold puddings are considered good for nothing, when often they can be steamed for the next day, or, as in case of rice, made over in other forms. Vegetables are thrown away that would warm for breakfast nicely. Dish towels are thrown down where mice can destroy them. Soap is left in water to dissolve, or more used than is necessary. If Bath brick, whiting, rotten stone, etc., are used, much is wasted uselessly. The scrub brush is left in water, pails scorched by the stove, tubs and barrels left in the sun to dry and fall apart, chamber pails allowed to rust, tins not dried, and iron-ware rusted; nice knives used for cooking in the kitchen, silver spoons are used to scrape kettles, or forks to toast bread. Rinsing of sweetmeats, and skimmings of syrup, which make good vinegar, are thrown out; cream is allowed to mould, and spoil; mustard to dry in the pot, and vinegar to corrode the castor; tea, roasted coffee, pepper, and spices, to stand open and lose their strength. The molasses jug loses the cork, and the flies take possession. Sweetmeats are opened and forgotten. Vinegar is drawn in a basin, and allowed to stand, until both basin and vinegar are spoiled. Sugar is spilled from the barrel, coffee from the sack, and tea from the chest. Different sauces are made too sweet, and both sauce and sugar wasted. Dried fruit has not been taken care of in season, and becomes wormy. The vinegar on pickles loses strength, or leaks out, and the pickles become soft. Potatoes in the cellar grow, and the sprouts are not removed until they become worthless. Apples decay for want of looking over. Pork spoils for want of salt, and beef because the brine wants scalding. Hams become tainted, or filled with vermin, for want of the right protection. Dried beef becomes so hard it can't be cut. Cheese moulds, and is eaten by mice or vermin. Lard is not well tried in the Fall, and becomes tainted. Butter spoils for want of being well made at first. Bones are burned that will make soup. Ashes are thrown out carelessly, endangering the premises, and being wasted. Servants leave a light and fire burning in the kitchen, when they are out all the evening. Clothes are whipped to pieces in the wind; fine cambrics rubbed on the board, and laces torn in starching. Brooms are never hung up, and soon are spoiled. Carpets are swept with stubs, hardly fit to scrub the kitchen, and good new brooms used for scrubbing. Towels are used in place of holders, and good sheets to iron on, taking a fresh one every week, thus scorching nearly all in the house. Fluid, if used, is left uncorked, endangering the house, and wasting the alcohol. Caps are left from lamps, rendering the fluid worthless by evaporation. Table linen is thrown carelessly down and is eaten by mice, or put away damp and is mildewed; or the fruit stains are forgotten, and the stains washed in. Table-cloths and napkins used as dish wipers; mats forgotten to be put under hot dishes; teapots melted by the stove; water forgotten in pitchers, and allowed to freeze in winter; slops for cow and pig never saved; china used to feed cats and dogs on; and in many other ways, a careless and inexperienced housekeeper will waste, without heeding the hard-earned wages of her husband; when she really thinks, because she buys no fine clothes, makes the old ones last, and cooks plainly, she is a most superior housekeeper."—The next time an unthinking husband is disposed to be severe because some trifling matter has been neglected, he should "put that in his pipe and smoke it."

Tim Bunker on Old Style House-Keeping.

It was a rainy morning in August, I had five tons of hay down, and it was "morally certain," as Mr. Spooner says, when he is putting a thing strong, that I shouldn't have any hay weather, so there was nothing to do but set in the house, and see things grow. There is great satisfaction in that, and blessed is that man who has his fields and meadows where he can see them from his window. I have seen some rather handsome pictures down in your city in the Academy, and other places, but there are none to compare with the view from my dining room window. There lies spread out before me, the Horse-pond lot, all nicely mowed, and looking as smooth as Mr. Olmstead's lawns in your Central Park that you think so much of; and just beyond, a four acre field of corn, in full tassel and spindle; and beyond that, a side hill covered with wood and rocks, and a little to the right hand, a glimpse of the sea covered with sails. There is a pasture dotted with cattle and sheep, that beat anything I ever saw on canvass. It don't cost half so much to build a house with the picture gallery outside as it does to have it within, and then you are never pinched for room, and it costs nothing to have your pictures retouched, and the frames regilded. It is a source of endless entertainment and instruction to study this out-door picture gallery, and rainy days give us the leisure, and a new light to see them in.

Mrs. Bunker had got her cheese in the press, and the milk things washed up, and things put to rights generally, when I saw her overhauling a bundle of old yellow papers that looked as if they were a hundred years old. One of them was an old account book of her grandfather's, made by doubling a sheet of foolscap twice, and sewing it together. The thread is stout linen, such as her grandmother used to spin on the linen wheel.

"Now," says she, "Timothy I like to look over these things and see how differently folks live now, from what they used to when my mother was a

girl. Here is the account of my mother's 'setting out in life' when she was married, in the handwriting of my grandfather, Amos Dogett."

"When was that?" I asked.

She read from the manuscript: "Our oldest daughter Sally was married to John Walton Jan. ye 29th 1784."

"That was just after the war of Independence."

She continued "Things that I let my daughter have was one horse 10 pound, one new side saddle and bridle 5 pound." "Horse flesh was pretty cheap then," I remarked. "Reckoning the pound at three dollars and a third, which was its value in the New England States, it would make the horse worth only thirty three dollars and a third, and the saddle and bridle half as much—which is only about one quarter of the price of good sound horses in Hookertown to-day. Side saddles have not fallen off much. They were a good deal in demand then, and not much now. You see Mrs. John Walton, bride, had no other way to get to her new home but on horseback, and all other brides, and damsels in general, had either to try the saddle or go on foot. Happy was that damsel who could boast of a horse on her wedding day."

Immediately following the saddle was the entry of "one pot 8 shillings, one small iron kettle 6 shillings, one iron spider 4 shillings, one pair of flats." It would seem from this that Mrs. Walton was expected to cook her husband's dinner, and to iron the clothes. Mrs. Bunker says she was a capital cook and laundress. I think it must run in the blood. I have no doubt I am indebted to that pot and spider for all the good dinners I have eaten under my own roof.

Then follows, in the bridal outfit, "two candle sticks, two shillings." These must have been iron, such as went out of date about the time I was a boy. The bottoms of the dilapidated sticks used to figure on butchering day, in scraping off the hair from hogs, and nothing better has been invented since. Then follows "one case of knives, one fire shovel, one large iron kettle, one teapot, one teakettle, one tramel." Then for personal adornment the bride had "one gauze handkerchief, 3 shillings sixpence, one pair of gloves same price, one pair of English shoes 6 shillings, one pound of whalebone, and four and a half yards moreen for a skirt," which shows what the whale-bone was intended for. Our grandmothers probably split their own whalebone, and never dreamed of steel hoop skirts.

The fitting out of the bridal chamber was "one feather bed, 4 pound 10 shillings, two under beds, 1 pound 1 shilling, four pairs of sheets, two coverlids, two fulled blankets, one chest and lock, and one looking glass, and one paper of pins." There was no wash-stand with bowl and pitcher, soap dish, and mugs, towel rack, and other indispensable articles in a modern bedchamber. The morning ablutions were probably made in the kitchen, or at the back door from a stone hollowed out for the purpose. Possibly they kept as clean as those who have better facilities for washing.

The table furniture was rather meager, one set of teacups, nine plates, four platters, half a dozen spoons, half a dozen teaspoons, two basins, two porringers. There is nothing said of table linen, and probably Mrs. John Walton was in the hight of fashion, not only at tea, but at every meal, eating from a *bare board*. This, I mistrust, was not mahogany or black walnut oiled, but plain pine, or maple, which was scrubbed daily for the whole term of her natural life.

A significant entry was "one little wheel, one pound." This was the linen wheel on which all the sewing thread was spun, and the fine linen for shirts and sheets, and other articles for the bed, and for the person. There was also "one set of loom irons 3 shillings." John was expected to make the loom himself. Fortunately it consisted mainly of wood, and the framing was not difficult. This brings back the good old days of homespun. In that loom was woven all the clothing, woolen and linen, of herself, husband, and children, for a whole generation. What visions of solid work and happiness the loom and wheel open to us.

We find also among the bridal items "hard money for to buy a cow with, 5 pounds 8 shillings." The *hard* money indicates the abundance of paper currency at the close of the war. The price of cows was relatively much higher than the price of horses. Twice the sum would now buy a very good cow. That cow laid the foundation of John Walton's fortune. His wife understood the mysteries of the dairy, and the one cow grew in a few years into a herd of thirty, and the Walton butter and cheese became famous.

The whole outfit foots up forty-four pounds nineteen shillings sixpence, or less than one hundred and fifty dollars. That stocked a housekeeper in 1784, and probably she was better off than most of her neighbors. The whole would not equal the cost of the piano, now in many a farmer's parlor.

"The tea set that Dea. Smith gave Eliza at her wedding cost $200," added Mrs. Bunker.

"I know it and the rest of the presents were worth a thousand dollars, to say nothing of the furnished house into which she entered when she got back from the bridal trip."

"A single looking glass costing eight shillings, and a mirror covering half the side of a parlor, and costing three hundred dollars, is another contrast worth looking at," said Sally.

"And the young brides that prink before them are no handsomer or smarter than Sally Walton's daughter, forty years ago."——"It is time you forgot that, Timothy. It is a long while ago."

Here the dinner bell rung and the dingy account book was returned to its place in the bundle.

Hookertown, Aug. 10th, 1863. } Yours to command, TIMOTHY BUNKER ESQ.

For the American Agriculturist.

How to Wash Flannels.

"I do hate to wear flannel under clothes," said a gentleman friend, "they chafe so." It was in a mixed company that he spoke, but I thought to myself, if I was acquainted with his sister or wife I'd tell her how to wash the flannels in such a manner that they might not *chafe*. Now flannel is made of animal substance, and is not so easily cleaned as a purely vegetable material, so in our house the flannels invariably form a distinct washing by themselves. Soft water is indispensable. Early in the morning then, we put on the full wash boiler to heat, and for one pair of blankets, throw in borax about the size of a walnut, and cut in a bar of hard soap very fine. When the blankets have a spot here or there, which by accident may have received extra soiling, we take a needle and thread and mark it with a couple of stitches, and rub on a little soap, for without this precaution the spot could not be found after the blankets were wet. We then put them down in a tub and pour the contents of the wash kettle *boiling* upon them. The tub stands for an hour, or until it is cool enough for the hands, when we rub the beforementioned spots, "souse" the blankets, and wring out. The second suds is prepared as the first, save that only half a bar of soap is required. The third water is clear and boiling, and is designed to cleanse the blankets of the soap of the preceding water, for soap is not healthy for the skin, and if the third water appears *sudsy*, we give them a fourth hot water with a squeeze of blue in it, very little, however, or the blankets will be streaky. And now the quicker they are dried the better, it is very disastrous to have rain come on, or have them snowed upon, or lie overnight; indeed I never wash blankets unless the sun smiles upon me when I am about it. In our way of washing, flannels never shrink, and consequently never get "hard," and as we don't rub them, the nap is left on, they are more comfortable, and wear much longer than when washed in the ordinary way. The colored flannels we put in the tub as we take the white flannels out, having first added a little melted soap; we wash them out right away, as the color will come out by standing. The water must be as hot as the hands can bear, and the soap that is rubbed on about the collars and wristbands of flannel shirts, can not be put on when they are out of the suds, for in many kinds of colored flannel the mark of the soap is left, unless used while the flannel is in the water. Colored flannel does not shrink like white, and for this reason and that the color is likely to come out, we do not use boiling water. In other respects we go through the same process in washing, save that the impression of blue is omitted in the last rinsing. In conclusion, sister readers, use flannel plentifully in your households. In this northern climate, cotton is a very poor substitute. If people paid out as much for flannel as they do for those homeopathic sugar pills, the doctors would be all the poorer, and their own homes all the happier.

MARION.

Carroll County, Illinois.

How to Take Leaf Impressions.

In answer to several inquirers who ask how to take correct copies of leaves, we publish the directions given in "Art Recreations," a manual of ornamental work, published by J. E. Tilton & Co., Boston, Mass.

Hold oiled paper in the smoke of a lamp, or of pitch, until it becomes coated with the smoke; to this paper apply the leaf of which you wish an impression, having previously warmed it between your hands, that it may be pliable; place the lower surface of the leaf upon the blackened surface of the oiled paper, that the numerous veins that are so prominent on this side may receive from the paper a portion of the smoke; lay a paper over the leaf, and then press it gently upon the smoked paper; with the finger or with a small roller, (covered with woolen cloth, or some like soft material,) so that every part of the leaf may come in contact with the sooted oil paper. A coating of the smoke will adhere to the leaf. Then remove the leaf carefully, and place the blackened surface on a piece of white paper, not ruled, or in a book prepared for the purpose, covering the leaf with a clean slip of paper, and pressing upon it with the fingers or roller, as before. Thus may be obtained the impression of a leaf, showing the perfect outlines, together with an accurate exhibition of the veins which extend in every direction through it, more correctly than the finest drawing. And this process is so simple, and the materials so easily obtained, that any person, with a little practice to enable him to apply the right quantity of smoke to the oil paper and give the leaf a proper pressure, can prepare beautiful leaf impressions, such as a naturalist would be proud to possess. Specimens thus prepared can be neatly preserved in a book form, interleaving the impressions with tissue paper. [But we consider all leaf impressions vastly inferior to carefully pressed real leaves themselves.—ED.]

Don't Apologize.

A few months ago one of the Editors of the *Agriculturist*, (who was then *staying*, not *living* in the city, for nobody really *lives* there,) happened to call unexpectedly at a farm house by the sea-side. The good wife in asking him to dinner, apologized for the homeliness of the meal, regretting that she had nothing but clam pie; but "if she had known that he was coming, she would have had fresh meat." If there is anything in the world that *this* Editor is tired of, it is roast beef, and out of any possible bill of fare, that he could have chosen from, clam pie would have had his preference. We mention this to show that country people are much mistaken in thinking they must make a fuss over their city friends. Any change of food is pleasant, even if it is from richer to plainer. If you receive your city friends, give them as good as you have yourself, and don't make them feel uncomfortable by any unnecessary apologies for your fare. If you have only fried pork and potatoes, serve it neatly and eat it thankfully.—We have sometimes sat down to a table, and had our appetite almost destroyed by the hard things said about the food by the one who had spared no effort to make it first-rate.—Our first genuine New-England

Thanksgiving Dinner, was during the first vacation after we went from the West to an Eastern College. A widow lady in good circumstances, invited two of us class-mates to fill at her dinner table, the vacant places of her sons absent as mates of vessels at sea. After eating course after course of excellent food, and becoming literally surfeited, our hostess brought on some mince pie. We begged to be excused, but she instantly replied, "Take some of it, take a little; it is good, I know it is, I made it myself." Of course we did, and praised it too, for it deserved it. Had she, in fishing for a compliment, began by saying it was poor, with sundry reasons why it was so, we should have declined, and she would, ten to one, have been offended that her good pie was not appreciated. We have often referred to this incident, as illustrating the attractiveness of an open frank demeanor, when not accompanied by overweening self-esteem.—Sometimes when our friends tell us the *Agriculturist* is a good paper, we are tempted to say, "we know it is; we made it ourselves."

To Prevent Dampness in Walls.

It is one of the common complaints of those living in stone or brick houses improperly built, that they are damp and unwholesome. This need not be. Those which are damp, are so for the same reason that a pitcher of cold water "sweats" in hot weather. They condense the moisture of the air. The only way to prevent this, is to put some kind of non-conductor between the wall and the air of the apartments. A body of confined air is perhaps the best non-conductor. "Fur off" an inch or two from the solid wall, plaster tightly, and it will keep out frost and moisture better than a foot of solid granite. Even a cellar can be made dry and comparatively healthy by this simple treatment of its walls.

A Word More about Wringers.

From recent observation, we judge this valuable implement is coming into very general use all over the country, West as well as East, and we are glad to find this the case, for we believe it to be real labor-saving implement in the house, where such implements are needed as well as in the field. But we are sorry to see so many persuaded into buying wringers without cogs upon the rollers. We have heard the arguments of different dealers, and personally experimented a good deal with several kinds, and feel quite sure that the cogs are a very desirable addition, *to say the least.* The cogs compel the rollers to turn together, and this obviates the danger of one of them slipping upon and straining, if not tearing, the fibers when a wad or mass of clothing chances to be passed in. The rubber is also less likely to work loose when cogs are added. We have no interest whatever in anybody's manufacture, and care not whose is sold, but as we understand the matter, we hope the public demand will compel every maker to add the cogs; they will not increase the cost half so much as they will increase the value of the implement.

Wire Clothes Lines.

A subscriber writes from the telegraph office at Carlisle, Pa., that he has for some time used the annealed and galvanized telegraph wire as a substitute for the common clothes line, and finds it to work admirably. He says that it is cheaper than rope, more durable, and as it does not sag the clothes down into the dirt, there is a great saving of the good nature of the women folks. The wire being galvanized, there is no danger of injuring the clothes by rust. From its stiffness, the wire would be unhandy to move, and a line of this kind must therefore be put up permanently.—*Agriculturist.*

Repelling Worms from Dried Fruit.—Francis E. Rumford, New-Castle Co., Del., writes to the *Agriculturist*, that during the past year he has tested the efficacy of sassafras bark for repelling worms from dried fruit. Two bags of dried apples were placed together in a chest, the one open, but with a few chips of the bark scattered through it, the other closely tied: the latter was infested with worms, the former entirely escaped.

Spirits Turpentine for Moths.—A subscriber to the *Agriculturist* writes that during the last of May he sprinkles turpentine on pieces of flannel, wraps these in paper, and lays them among clothing or articles subject to moths: this he says has proved a certain preventive against moths.

Good Way to Keep Smoked Hams.

Good hams, well cured and well preserved, are very convenient to have in the house. They are wholesome food, and are always ready when other meats are absent, or when a hurried, impromptu solid meal is needed. In our travels this summer we have eaten ham in a good many places, at the hotels and elsewhere—some very poor, full of salt and smoke, and then fried to a crisp, and some very good, sweet, tender, fresh, and just cooked through. The best we believe, was met with at Friend Quinby's, at St. Johnsville, N. Y., where we called after the usual dinner hour, and was just in a condition to enjoy a good repast quickly got up. For the benefit of the housekeepers of the *American Agriculturist* Family we enquired the process of curing the hams: They were put in brine in the usual manner last Fall or Winter, and when just fairly salted through, were moderately smoked. They were next cut into slices all ready for the table, and then about half cooked. The pieces were then packed closely into stone-ware crocks, and the lard cooked out poured over them. When there was not fat enough fried out to cover them, some melted lard was added. The crocks were covered and set away, and whenever ham is wanted, it is only necessary to take out a few pieces and finish the cooking, in less then five minutes—with no trouble or time wasted in hunting up and sharpening the knife and saw. We can testify that in the case refered to, the hams were as sweet and tender as could be desired. The method appears to be worthy of general adoption.—We may add here, that nine out of ten housekeepers cook ham *too much* to leave it either palatable or digestible. It has not a raw taste, if barely heated well through. By the above method of preserving, the salting and smooking need only be carried to just the desired point to make them most palatable.

Hints on Cooking, etc.

Green Corn Pudding.—Contributed to the *Agriculturist* by N. Burwell, Litchfield Co., Conn.: Take 12 good sized ears of corn, grate or shave it off thin, add to it 2 quarts of milk, 1 cup of sugar, a small piece of butter, 2 eggs well beaten ,1 teaspoonful salt, 1 of saleratus, and spice with nutmeg. Bake 3 hours.

Cooking Peas.—Contributed to the *Agriculturist* by Mrs. S. Hubbard, Switzerland Co., Ind. Gather and shell the peas at night, and put them in cold water, in which you have previously thrown a handful of salt. In the morning pour off the water and put them in boiling water. Let them stew for 35 minutes, and then put in ½ cupful of sweet cream, with a piece of butter the size of an egg, and a tablespoonful of flour. Stew for 5 minutes longer—send to the table hot, and you have a dish fit for an epicure.

"Blackberry Flummery."—Contributed to the *Agriculturist* by a "Jersey Farmer's Daughter." Stew blackberries, moderately sweetened with sugar or molasses, until soft; mix a thickening of flour and water, and stir into the berries. Continue stirring while it boils, until the whole becomes incorporated into a mass just sufficiently thick to pour into moulds; when cold turn out for dessert—to be eaten with milk or cream.

To Preserve Tomatoes.—Contributed to the *Agriculturist* by M. A. Goodale, Suffolk Co., N. Y. For 7 lbs. of ripe tomatoes, use half their weight of finely pulverized sugar. Stew ¼ pound of green ginger root in water until soft. Remove the skins from the fruit without scalding. Dissolve and boil the sugar in a little water until it is thick, then put in the tomatoes, and take from the fire. When cool, skim them out, heat the syrup, throw in the fruit, until the process is repeated three times. Then add all together, and boil gently until done. Let the syrup become thick before the tomatoes are put in it. Seal the jars with paste made of rye flour, wet with cold water, and keep in a dry place. This will keep all Winter.

Plum Catsup.—Contributed to the *Agriculturist* by Mrs. B. F. Sharp, Geauga Co., O. Boil together for two hours, 9 lbs. plums, 6 lbs. sugar, and 3 pts. vinegar. Just before removing from the fire, add one tablespoonful each of allspice, cloves, and cinnamon. Keep in small jars well corked. The same directions will answer for currants or gooseberries.

Cottage Pudding.—Contributed to the *Agriculturist* by Mrs. S. C. Frye, Merrimac Co., N H. Mix 2½ tablespoofuls of melted butter, 1 cup of white sugar, 1 egg, 1 cup of sweet milk, 1 pint of flour, 1 teaspoonful of soda and 2 of cream of tartar; flavor with lemon. Bake in a moderate oven ¾ hour.

Sauce, for this or other puddings: 1 egg, ¾ cup of butter, 1½ cups white sugar, ½ glass wine, 2 tablespoonfuls of cream. Set a dish containing it in a vessel of hot water, and stir half an hour. [Many a man has come to dissipation and to a drunkard's grave, by having a taste for alcohol formed while eating a mother's or wife's good wine and brandy sauces.—Ed.]

Economy Cakes.—Contributed to the *Agriculturist* by Mrs. Harue, Hunterdon Co., N. J. Take 1 quart of mashed potatoes, 1 egg, ½ teacup wheat flour, a tablespoonful of butter, and add milk to form a thick batter. Season with pepper and salt. Mix all well together; make into cakes ¾ inch thick, and fry brown where meat was previously fried. These can be recommended.

Cream of Tartar Cake.—Contributed to the *Agriculturist* by Lizzie Field, Orleans Co., Vt. Take 3 cups of sugar, 3 eggs, ½ cup of butter, 1 cup new milk, ½ teaspoonful of soda, 1 teaspoonful of cream of tartar, and 4 cups of flour. Mix the cream of tartar with the flour, and the soda with the milk, and add a little salt. Season to taste. Bake in shallow tins, and cut in squares.

Puff Cake.—Contributed to the *Agriculturist* by "Martha." Take 2 cups of white sugar, 3 eggs, 1 scant cup of butter, 1 cup of sweet milk, 1 teaspoonful of saleratus, 2 of cream of tartar, 3 cups of flour. Flavor to taste. Stir together at once.

Valuable Recipes.—For preserving the complexion: temperance. For whitening the hands: honesty. To remove stains: repentance. For improving the sight: observation. The most valuable ring: the home circle. For improving voice: civility. The best rouge: modesty. The best eye-water: charity. A cure for deafness: attention. A mixture to clear the throat: cheerfulness. A wash for wrinkles; contentment. A general beautifier: contentment.

The Apple-Pie Melon.—Our experience with this has not been favorable, but occasionally a subscriber commends it. L. C. Cook, Saratoga Co. N. Y., writes, "it is an excellent substitute for apples, when you 'get the knack' of using it. For pudding I believe any one would prefer it to rice. It makes excellent sweet pickles." Perhaps our corespondent will do a favor by giving her "knack" to the readers of the *Agriculturist.*

Marrying a Gardener.—An English writer, in his advice to young married women, says that their Mother Eve married a gardener. But he forgot to add, that in consequence of the marriage, the gardener "lost his situation."

INTRODUCTION OF THE PETS.

Engraved for the American Agriculturist.

Young Animals—Curious Traits.

"This is Miss Daisy, Master Nero, and you must be very kind to her," is what the lad in the picture appears to be saying, by way of introducing his pets to each other. The animals are both evidently pleased with their owner, and under his training will doubtless be very good friends to each other. This managing of pets is one of the pleasantest and most interesting things for young people in the country. It will surprise you to discover how much such creatures may be taught, and to notice the traits of character they will show. By a little care, while young, animals of the most opposite natural qualities may be brought to live together on the best of terms. The writer has seen a dog, a lamb, and a kitten, frolicking together by the hour. Recently he was much interested by the conduct of a dog which was apparently attacking a chicken. He seemed to be biting it with the intention of making a meal of it; but on closer examination it proved that the chicken had been hurt in some way, and the dog was carefully trying to set it upon its feet. Failing in this, he lay down beside it, and commenced licking its wounded leg. A correspondent of the *Agriculturist*, "Lex," relates the following incident. About a month since, two cats had each a "family" within a few days of each other. All the kittens were drowned except two of each set, which, with their respective mamas, were snugly settled in a couple of boxes in the same room. On the following day, both families entire—or rather what remained of them—were found coiled up together in the same box. They were not disturbed, and thenceforward the two mothers ceased to recognize any distinction between the two pairs of kittens. They would alternately nurse the whole lot, or both affectionately entwined together, divide the "labor of love," just as the kittens, lying snugly between them, would happen to turn to the one or the other. But this is not all. Eddie brought a couple of young squirrels from the woods, which soon became very gentle. In less than two days, *both* were found in the box among the cats and kittens, drawing from either or both the maternal fonts, upon a like footing of equality and community with that previously enjoyed by the kittens! The old cats seemed to acquiesce fully in the arrangement, and so it proceeded for a couple of weeks, until one of the squirrels was accidentally killed. The other, having the freedom of the house, is now a romping playmate of both cats and kittens, who continue uniformly to treat him as "one of the family." Many such incidents have come to our knowledge, showing that this department of natural history is not one of the least interesting that can be studied. Our young readers, especially in the country, can find almost endless amusement in experimenting upon it, and at the same time, the patience and kindness they will be required to exercise in order to be successful, will have a happy influence on their own dispositions and characters, and teach them forbearance toward their own fellows.

An Eccentric Physician.—Anecdote.

A friend relates for the *Agriculturist*, the following anecdote of a skillful physician, Dr. M——, who is still practising in Rhode Island. He had a way of doing things all his own, and no one could tell beforehand, "where he would come out." On one occasion he was called to perform a very important surgical operation on a young man living in the country. Arriving there he found collected a large number of neighboring farmers and others, who had come from curiosity to witness the operation. He observed that the house was scantily furnished, and other evidences of the poverty of the family were apparent, and he inquired whether the mother, a widow, was ready to pay the $50 which he should charge. She replied that she could not at present, but would do so as soon as possible. The doctor immediately informed the bystanders, that he would do nothing until the money was paid, and asked them if they could not make up the amount. This was soon done, but not without many condemnations of the hard-hearted doctor, who, however, paid no attention to the remarks, but immediately went on with his work, which he performed successfully. As soon as it was over, he stepped up to the mother, and remarking "the boy will need some things before he gets well," slipped the $50 into her hand, and was off before he could hear her thanks, or the loud praises of those who had just been denouncing him as a grasping miser.

Boys' and Girls' Garden—No. 6.

Perhaps it will be best for our young friends, before they read this garden talk, to look over again the lessons for July and August. We wish you to be perfectly familiar with what is said in July, about the Flax flower. We have taken the Flax as our starting point, our model flower, and you can not have its structure or the "way it is got up," as people sometimes say, too thoroughly by heart. We there showed you the floral envelopes—the calyx and corolla, and the essential organs—the stamens and pistils—in their relations to one another. In August we endeavored to show you how this plan of the flower is varied to produce other shapes, and illustrated this in various ways. We showed you, by means of the Tomato and Morning Glory, that a variety of forms could be produced by the union or growing together of the parts of the corolla, and that in the Pea we had a very different looking flower, by the unequal size of the petals, and the partial union of two of them. In this lesson we wish to continue to show the variations from the Flax, our pattern flower, and to have you see that other parts, besides those of the corolla, can unite more or less into one piece. If you examine the calyx of the Pea, you will see that the parts or sepals are joined together. So you see that by merely uniting the parts of the calyx and of the corolla in different degrees, we get a great variety of fashions. But this kind of union is not confined to these parts, it extends to the stamens and pistils. The flower of the Tomato will show you one kind of union of the corolla, if you gently separate the stamens, the anthers will be found to be joined together by a thin film or skin. The Pea shows the union of the stamens in a much more striking manner. Carefully pull off the petals of a Pea, and you will find that the stamens are joined together, not this time by their anthers, but by their filaments. So you see that there are two different ways by which stamens can be united. The united stamens of the Pea form a sort of tube which encloses the pistil, but the tube is not a perfect one. There are ten stamens, but one of these is not joined to the rest, and with a little care you can separate it, leaving nine stuck together and one free. (Fig. 27.) These will answer for illustrations of the several different ways in which the stamens are united.

Fig. 27—STAMENS OF PEA.

Union between the pistils is very common. We have not said a great deal about the pistil thus far, but this is a most important part of the flower, and we shall say more of it by and by. The pistils vary greatly in number; in the Pea we have but one, and in the Flax we have five, but they are united into a solid body by their ovaries, though their styles are distinct. (Fig. 28.) The pistil of the Morning Glory consists really of three single pistils joined together not only by their ovaries, but by their styles also. There are generally as many cells or divisions in the ovary as there are pistils joined together, and when we cut the ovary of the Morning Glory across, and find three partitions (fig. 29), we may be safe in concluding that it is not a simple pistil, but one formed by the joining together of three so completely as to appear like one. In these different illustrations we have shown the union of parts of the same kind with one another, as of petals with petals, stamens with stamens, etc.

Fig. 28.—PISTIL OF FLAX.

Now we wish to call your attention to a different kind of union, one in which the parts of one set are joined to those of another. This brings us to another set of forms of the flower, and those which often make its structure difficult to understand. Beginning with the floral envelopes, we often find the calyx and corolla cohering together, as will be seen if you examine the blossom of the Melon or Cucumber. A union may take place between the stamens and the corolla. If you split open the flower of the Morning Glory you will see (fig. 30) that the lower parts of the filaments are attached to the corolla. Now this kind of union may go on still further, and the stamens, corolla and calyx, all be united to the ovary. The Melon and Cucumber give us an illustration of this; here (Fig. 31) the corolla appears to come out of the top of the ovary, but really the other parts are joined to the ovary and are free at the top. It is just as if the other parts of the Flax flower stuck to its ovary and only appeared above it. Still other changes are produced in flowers by the absence of one set of parts. You will recollect that it has been stated that the stamens and pistils were the essential parts; if these are present, the flower is a perfect one, and will perfect its seeds no matter if the corolla or calyx or both are absent. There are many flowers which have a calyx and no corolla, and many others which have neither. Among our plants chosen for illustration, the Oat has neither calyx nor corolla. It is rather late for you to examine the flower of the Oat, but you may, perhaps find some among the stubble of the oat field. Here we have neither calyx or corolla, but green scaly, or chaffy parts called *glumes*. Fig. 32, will help you to understand the flower of the Oat. Beginning below you have a pair of empty scales, and within these two pairs of scales, and inside of these pairs you will find the pis-

F. 29. OVARY.

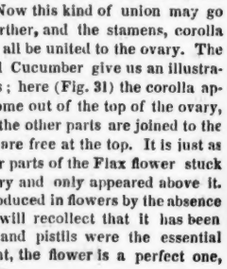


Fig. 30.—COROLLA OF THE MORNING GLORY—OPENED.

til and stamens. One of these scales usually bears a beard or bristle as shown on the right hand of the Oat figure. Though the flower of the Oat has neither calyx nor corolla, it has both stamens and pistils, hence it is *perfect*. Where either stamens or pistils are absent, the flower is *imperfect*. In the Melon and Cucumber, and all of the Squash family, the stamens are contained in one flower, and the pistils in another. In each vine some of the flowers have stamens only, and are *staminate* or *sterile*, and other flowers have pistils only, and are *pistillate* or *fertile*. Fig. 31, represents the pistillate flower of the Cucumber, and fig. 33, the staminate flower. The pistillate flower is easily known by its having its ovary apparently below the corolla, this contains no stamens. The staminate flower, fig. 33, has no pistil, but stamens only, and these in this particular family of plants, are not only united, but the anthers are bent up in a most curious manner as shown at the left hand of the figure. In the Melon, Cucumber, Squashes, and all plants of that family, we have the staminate and pistillate flowers both in the same plant, but there are many cases in which these are in separate plants, and separated still further, as in the Hemp, Hop, Willow, etc. Now we have already stated that the ovary—the lower part of the pistil—contained the ovules which were to become seeds, and that these would never be perfected unless the pollen—the fine powder furnished by the anthers—came in contact with the stigma. When the stamens and pistils are both in the same flower—as in the Flax—this contact of the pollen, or *fertilization* as it is called, can readily

Fig. 31—PISTILLATE FLOWER OF THE CUCUMBER.

Fig. 32—FLOWER OF OAT.

take place; but in the case of separated flowers like the Melon, etc., the pollen has to be carried to some distance before it can reach the pistils. The pollen grains (mentioned in the July lesson) are finer than the finest dust, and are readily blown about by the winds. This is one way in which pollen can pass from a staminate to a pistillate flower, but insects also play an important part. Bees especially, enter flowers for their sweet juices, which they convert into honey, and for pollen, which they use as food for their young. Every one has noticed how busy bees are among all the plants of the Squash family, to which the Cucumber and Melon belong. They go about from flower to flower in search of food, and at the same time they carry pollen from the staminate to the pistillate flowers, and thus render the plant an important service. We have probably said enough about the various shapes which the flower assumes, to enable you to find out in all our wild flowers, and in all the cultivated *single* ones the real position of the parts. Generally you will find that flowers differ from the Flax in the union of parts of the same kind, the unequal size of parts of the same kind, the union of parts of different kinds, or the absence of either corolla, stamens, or pistils. We do not expect to teach you every thing about plants in these lessons, but hope that you will, by a thorough study of the illustrations we have chosen, get such a general idea of plants, and see that there is so much about them that is worth studying, that you will, another year, take up some book on the subject, that will give you a more thorough knowledge than we can impart in these short lessons.

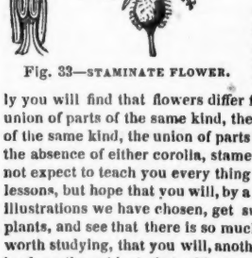
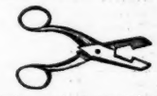


Fig. 33—STAMINATE FLOWER.

Button-Hole Scissors.

Here Boys, is something useful which you can make for your mothers and sisters. It is not a new affair, though most things are *new* to boys. The one from which this little picture is sketched, was made *forty nine years ago*, and is good yet! An aged friend of ours, whose "Golden Wedding" occurs next April, soon after he was married, took an old broken-pointed pair of scissors and filed a notch out of each blade, close to the joint, as you see in the engraving. The ends were then ground off so as to leave about half an inch of cutting blade, or just enough to cut the smallest button hole. Larger holes can be made by a second cut with the blades. The next time you see mother or sister trying to make a button-hole with a knife or a chisel, if you can find an old broken pair of scissors or shears, go privately and get them up something convenient, like that described above. Be careful not to let the file touch the cutting edges to be left, for they should be sharp. The notches should be ⅛ to 1 inch long, so as not to cut the edge of the cloth.



No. 50. *Illustrated Rebus.*—A truth too often forgotten.

No. 51. *Mathematical Problem.*—The following was contributed to the *Agriculturist* by Benjamin Albertson, Bucks Co., Pa., unaccompanied by any answer. From a hasty examination, it appears to us that not enough conditions are given for its solution; but we submit it to the mathematicians among our readers, for their decision. "A. B. and C., with their wives, P. Q. and R., went to market to buy pigs. Each man and each woman bought as many as they gave shillings for each pig. A. bought 23 pigs more than Q; B. bought 11 more than P.; also each man laid out 63 shillings more than his wife. Which two persons were man and wife?"

Questions to Teach Observation.

Do cats and dogs have the same number of claws or nails on each foot? What is the difference in the manner of cattle and horses rising, after lying down? What is the difference in the teeth of horses and cattle? How many have each? How many has the sheep? Answers to these need not be sent in, as all can ascertain them by simply examining for themselves.

Answers to Problems and Puzzles.

Answers to Problems and Puzzles in August number, (page 249). No. 47. *Illustrated Rebus.*—He bears (or she bears) the palm, that ch ear full y follows duty; or, He bears the palm that cheerfully follows duty. No. 48, *Arithmetical Problem.* He travels 40 miles an hour in going, and 25 miles an hour in returning. No. 49, *Arithmetical Problem*, has thus far received no answers by our readers; we therefore leave it unanswered for another month. *Note.*—In printing the answer to No. 46, last month, the figures were accidentally reversed. It should read, A, should receive $98 and 232-331; B, $171 and 99-331. The last figures are fractions, not cents and decimals, as some misunderstood.

No. 52. *An Enigma.*—Contributed to the *American Agriculturist* by W. Painter, Harford Co., Md.

I'm a mystical word as you may perceive,
And oft appertain to the daughters of Eve;
My pliant good nature no mortal may doubt,
For I still am the same, tho' you turn me about.

If you cut me in twain each part you will find
Is composed of materials of just the same kind.
Divide me in three, and, if rightly disposed,
Of a double each portion you'll find is composed.

Though intended by Nature for care and protection,
You would think that I oft stood in need of correction,
For sometimes asunder I rudely am torn,
And to far distant countries each portion is borne;

One half you will find in the far distant South,
In a Town by a river not far from its mouth;
While the other (oh! shame that I thus am abused,)
In a Town far in Europe is constantly used.

Like true love that burns with a still constant flame,
My beginning and ending are always the same;
And to make you more closely my case understand,
I may say that my half is now fast in your hand.

Agricultural Exhibitions in 1863.

STATE FAIRS.

Amer. Instl. New-York	Academy Music	Sept.	3—23
Intern'l Wheat Show	Rochester, N. Y.	"	8—10
National Horse Fair	Hartford, Conn	"	8—10
New-Jersey	Patterson	"	8—11
Vermont	Rutland	"	8—11
Illinois (Hort.)	Rockford	"	8—11
Iowa	Dubuque	"	22—25
Pennsyl. Horti. Society	Philadelphia	"	15—17
New-York	Utica	"	15—18
Ohio	Cleveland	"	15—18
Canada East	Montreal	"	15—18
Kentucky	Louisville	"	15—19
Colorado	Denver City	"	17—18
Canada West	Kingston	"	21—25
Michigan	Kalamazoo	"	23—26
California	Sacramento	"	26—30
Illinois	Decatur	Sept.	28—Oct. 2
Indiana	Indianapolis	Sept.	28—Oct. 3
Pennsylvania	Norristown	"	29— " 2
Amer. Grape Show	New-York	Oct.	1— 3

COUNTY FAIRS.

MAINE.

Franklin	Farmington	Sept.	30—Oct. 1
Cumberl'd and Portl'd	Portland	Oct.	14—

MASSACHUSETTS.

Highland	Middlefield	Sept.	10—
Worcester Co. Hort.	Worcester	"	15—18
Middlesex	Concord	"	17—
Middlesex—South	Framingham	"	22—
Hoosic Valley	North Adams	"	22—
Franklin	Greenfield	"	24—
Middlesex—North	Lowell	"	24—
Norfolk	Dedham	"	24—
Worcester—West	Barre	"	24—
Worcester—Southeast	Milford	"	29—
Essex	Andover	"	29—
Nantucket	Nantucket	"	29—
Worcester—North	Fitchburgh	Sept.	29 Oct. 1
Hampshire, Franklin, & Hampden	Northampton	Oct.	1—
Worcester—South	Sturbridge	"	1—
Housatonic	Great Barrington	"	1—
Plymouth	Bridgewater	"	1—
Hampshire	Northampton	"	1— 2
Berkshire	Pittsfield	"	6—
Bristol	Taunton	"	6—
Barnstable	Barnstable	"	6— 7
Hampden	Springfield	"	6— 8
Hampshire	Amherst	"	8—
Hampden—East	Palmer	"	13—
Martha's Vineyard		Oct.	20—

CONNECTICUT.

Windham	Brooklyn	Sept.	22—24
New-London	Norwich	Sept.	29—Oct. 2

NEW-YORK.

Saratoga	Saratoga Springs	Sept.	1— 4
Oneida	Rome	"	7—10
Rensselaer	Troy	"	7—11
Broome	Binghampton	"	8—10
Monroe	Rochester	"	8—10
Washington	Salem	"	9—11
Lewis	Lowville	"	9—11
Erie	Buffalo	"	16—18
Seneca	Ovid	"	16—18
Orleans	Albion	"	17—18
Chenango	Oxford	"	21—22
Cattaraugus	Olean	"	22—24
St. Lawrence	Canton	"	22—24
Ulster	Kingston	"	22—24
Oswego	Mexico	"	22—24
Dutchess	Washington Hollow	"	22—24
Herkimer	Ilion	"	23—25
Warren	French Mountain	"	23—25
Susquehanna Valley	Unadilla	"	24—25
Schuyler	Watkins	"	24—26
Chenango	Norwich	Sept.	26—Oct. 1
Jefferson	Watertown	Sept.	29—30
Cayuga	Auburn	"	29— 1
Yates	Penn Yan	"	29— 1
Genesee	Batavia	Sept.	30—Oct. 1
Otsego	Cooperstown	"	30— " 1
Columbia	Hudson	"	29— " 1
Delaware	Delhi	"	29— " 1
Albany	Albany	"	29— " 2
Queens	Hempstead	Oct.	1—2

NEW-JERSEY.

Glenwood, (Susq. Co.)	Glenwood	Sept.	15—17
Burlington	Mt. Holly	Oct.	6— 7

PENNSYLVANIA.

Susquehanna	Montrose	Sept.	30—Oct. 1
Wyoming	Wyoming	Oct.	20—22

INDIANA.

Fayette	Connersville	Sept.	1— 4
Morgan	Centreton	"	8—11
Harrison	Corydon	"	8—11
Hendricks	Danville	"	15—17
Posey	New Harmony	Oct.	6— 9

ILLINOIS.

Vermillion	Catlin	Sept.	1— 4
La Salle	Ottawa	"	8—11
McDonough	Macomb	"	9—11
De Kalb	De Kalb	"	15—17
Winnebago	Rockford	"	15—18
Morgan	Jacksonville	"	15—18
Union	Warren	"	21—24
Mercer	Millersburg	"	22—24
Montgomery	Hillsboro	"	22—25
Tazewell	Tremont	Oct.	7— 9
Lee	Dixon	"	14—16

IOWA.

Scott	Davenport	Sept.	7—11
Floyd	Charles City	"	23—24

OHIO.

Ashtabula	Jefferson	Sept.	2— 4
Stark	Canton	"	7— 9
Muskingham	Barnsville	"	8—11
Franklin	Columbus	"	8—11
Madison	London	"	9—11
Highland	Hillsboro	"	9—11
Geauga	Burton	"	9—11
Warren	Lebanon	"	23—25
Columbiana	New-Lisbon	"	23—25
Marion	Marion	"	23—25
Richland	Mansfield	"	29— 1
Trumbull	Oak Grove	Sept.	29—Oct. 1
Lake	Painesville	"	30— " 2
Delaware	Delaware	"	30— " 2
Harrison	Cadiz	"	30— " 2
Miami	Troy	"	30— " 2
Pickaway	Circleville	"	30— " 2
Summit	Ackron	"	30— " 2
Seneca	Tiffin	"	30— " 2
Van Wirt	Van Wirt	Oct.	1— 2
Paulding	Antwerp	"	1— 2
Mahoning	Youngstown	"	6— 8
Loraine	Elyria	"	6— 9
Cuyahoga	Cleveland	"	6— 9
Stark	Canton	"	7— 9

MICHIGAN.

Hillsdale and Lanawee	Hudson	Oct.	6— 8
Oakland	Pontiac	"	7— 9

CALIFORNIA.

Santa Clara Valley	San Jose	Sept.	16—
Contra Costa	Pacheco	"	21—25
San Joaquin	Stockton	"	22—25

CANADA WEST.

Lanark	Almonte	Sept.	15—
South Lanark	Perth	"	17—18
West Middlesex	Strathroy	Oct.	1—
Toronto	Toronto	"	6— 8
Huron, (Clint. Branch,)	Clinton	"	7—
Durham—West	Newcastle	"	8— 9

WISCONSIN.

Vernon, (Bad Ax,)	Viroqua	Sept.	22—24
Green Lake	Berlin	"	23—24
Sheboygan	Sheboygan Falls	"	23—24
Monroe	Sparta	Oct.	8— 9

SUNDRY COUNTIES.

Champlain Valley	Vergennes, (Vt)	Sept.	16—17
Newcastle	Wilmington, (Del)	Oct.	6— 8
Gasconade	Herman, (Mo)	Sept.	23—24
King's Co	Springfield, (N. B.)	Oct.	22—
Davis	Farmington, (Utah)	Sept.	25—26

TOWN FAIRS.

NEW-YORK.

Trenton	Trenton Falls	Sept.	1— 3
Westfield	Chatauqua	"	9—11
Ellisburgh and Adams	Ellisburgh	"	10—11
Afton, (Co.)	Afton	"	15—16
Oxford, (Chenango Co.)	Oxford	"	21—23
Harpersville	Harpersville	"	23—24
Brookfield, (Madis. Co.)	Clockville	"	22—24
Hamilton, (Co.)	East Hamilton	Oct.	6— 7
Kirtland, (Oneida Co.)	Clinton	"	6— 8

OHIO.

Twinsburgh	Twinsburgh	Sept.	9—11
Orwell	Orwell	"	22—24
Geauga Free	Claridon	"	22—24
Conneaught	Conneaught	"	23—25
Madison, (Franklin Co.)	Groveport	"	23—25
Union	Garrettsville	Sept.	29—Oct. 1
Union, (Clinton Co.)	Blanchester	"	29— " 2
Tuscarawas Valley	Massilion	"	30— " 2

The Markets.

AMERICAN AGRICULTURIST OFFICE.
New-York, Wednesday Morning, Aug. 19, 1863.

1. TRANSACTIONS AT THE NEW-YORK MARKETS.

RECEIPTS.	*Flour.*	*Wheat.*	*Corn.*	*Rye.*	*Barley.*	*Oats.*
26 days *this* m'th	350,000	2,361,000	2,619,000	102,500	37,000	974,000
24 days *last* m'th	552,000	2,874,000	2,769,000	48,000	28,500	1,255,000

SALES.	*Flour.*	*Wheat.*	*Corn.*	*Rye.*	*Barley.*
26 days *this* month	303,000	2,584,000	2,197,000	81,000	——
24 days *last* month	411,000	2,929,000	2,866,000	93,000	11,000

2. *Comparison with same time last year.*

RECEIPTS.	*Flour.*	*Wheat.*	*Corn.*	*Rye.*	*Barley.*	*Oats.*
26 days 1863	350,000	2,361,000	2,619,000	102,500	37,000	974,000
26 days 1862	481,000	3,270,000	2,510,000	132,600	53,000	457,000

SALES.	*Flour.*	*Wheat.*	*Corn.*	*Rye.*	*Barley.*
26 days 1863	303,000	2,584,000	2,197,000	81,000	——
26 days 1862	576,000	5,430,000	2,980,000	118,000	——

3. *Exports from New-York, Jan. 1, to Aug. 19.*

	Flour. Bbls.	*Wheat. Bush.*	*Corn. Bush.*	*Rye. Bush.*	*Oats. Bush.*
1863	1,597,421	10,123,398	6,901,661	377,801	112,375
1862	2,018,540	12,461,076	8,103,203	987,851	24,625

The Domestic Produce Markets have been exceedingly dull the past month, owing in part to the extreme heat, but especially to the great decline in the relative value of gold as compared with currency. We have repeatedly shown that the high premium on gold was directly advantageous to farmers; so the fall in gold disturbs nominal prices and reduces the demand for export. With the fall of gold the value and demand for breadstuffs to export is diminished. The expected fall of Charleston has led dealers, and especially exporters, to anticipate a still further decline in gold, and hence they have been unwilling to buy breadstuffs. The tables above show the amount of sales, and of receipts, the latter diminished in part by a break in the Erie Canal. Really good lots of new flour, grain, and of mixed corn are yet scarce, and the market for these is firm.... The Oats and Rye received have mostly been greatly inferior, and difficult to sell. ....Not much done in Barley at this season .. Cotton advanced moderatly, but closes tame, and prices tending downward .. Provisions unsettled, by fall in gold—the chief inquiry being for hog products.... WOOL is similarly affected by gold, and buyers are shy of purchasing. The auction sales in Boston August 4th, and in New-York Aug. 12th, were spiritless; the sales at low rates.. ..Hops are in good request at full prices, owing to unfavorable reports from the chief growing districts .. Hay scarce, in good demand, and at firmer rates. North River Bale Hay closes buoyantly at 90c. @ $1.15 per 100 lbs.... Tobacco has been more freely purchased at easier prices ....In most other Agricultural products the transactions have been limited. The table below will show the changes in prices and the present rates.

CURRENT WHOLESALE PRICES.

	July 18.	August 19.
FLOUR—Super to Extra State	$4 00 @ 5 50	$3 85 @ 5 25
Superfine Western	4 00 @ 4 50	3 85 @ 4 35
Extra Western	5 00 @ 9 00	4 50 @ 8 60
Extra Genesee	5 60 @ 7 25	5 30 @ 7 00
Super. to Extra Southern	5 80 @ 9 00	5 25 @ 8 75
RYE FLOUR—Fine and Super.	3 40 @ 5 20	3 40 @ 5 25
CORN MEAL	4 00 @ 4 40	3 90 @ 4 30
WHEAT—All kinds of White	1 40 @ 1 60	1 27½@ 1 45
All kinds of Red	1 08 @ 1 32	85 @ 1 30
CORN—Yellow	76½@ 79	69 @ 73
Mixed	61 @ 66	66 @ 68½
OATS—Western	73 @ 75	55 @ 61
State	75 @ 76	62 @ 65
RYE	90 @ 1 03	80 @ 90
BARLEY	Nominal.	Nominal.
BEANS—per bushel	2 00 @ 3 30	2 00 @ 3 35
COTTON—Middlings, per lb	60 @ 60	67 @ 67½
HOPS, crop of 1862, per lb	14 @ 21	15 @ 22
FEATHERS, Live Geese, p. lb	48 @ 50	48 @ 53
SEED—Clover, per lb	Nominal.	7¾@ 8
Timothy, per bushel	Nominal.	1 87½@ 2 25
FLAX, per bushel	Nominal.	2 10 @ 2 40
SUGAR—Brown, per lb	9 @ 12¼	9 @ 13
MOLASSES, New-Orleans, p.gl.	35 @ 48	35 @ 45
COFFEE, Rio, per lb	27 @ 29½	25½@ 28½
TOBACCO—Kentucky, &c, p.lb	12 @ 30	9 @ 23
Seed Leaf, per lb	10 @ 40	15 @ 45
WOOL—Domestic fleece, p. lb	65 @ 80	60 @ 75
Domestic, pulled, per lb	55 @ 75	55½@ 70
Wool, California, unwashed	25 @ 55	25 @ 50
TALLOW, per lb	9¾@ 10	10¼@ 10¼
OIL CAKE, per tun	35 00 @45 00	38 50 @44 00
PORK—Mess, per bbl	13 75 @	13 25 @13 87½
Prime, per bbl	11 00 @11 25	10 50 @10 75
BEEF—Plain mess	9 50 @11 75	10 00 @12 25
LARD, in bbls, per lb	9¼@ 10	9½@ 10¾
BUTTER—Western, per lb	14 @ 17	14 @ 17½
State, per lb	15 @ 21	16 @ 22
CHEESE	9 @ 11	8 @ 11¼
Broom Corn—per lb	8 @ 10	8 @ 10
EGGS—Fresh, per dozen	18 @ 20	14 @ 16
POULTRY—Fowls, per lb	10 @ 16	16 @ 18
Ducks, per pair		1 00 @ 1 75
Geese, each		1 00 @ 1 50
Turkeys, per lb	8 @ 10	18 @ 20
POTATOES—Dykman, p. bbl	3 00 @ 3 50	1 50 @ 2 00
Mercers, per bbl	3 50 @ 4 00	1 75 @ 2 00
Sweet Delaware per bbl		6 50
TURNIPS—Ruta baga, per bbl	1 50 @ 1 75	1 25 @ 1 50
ONIONS, Red & Yellow p. bbl	3 00 @ 3 25	3 50
CABBAGES, per 100	4 00 @ 6 00	4 00 @ 6 00
DRIED APPLES, per lb	4 @ 6¼	5 @ 7
DRIED PEACHES, per lb	15 @ 16	15 @ 16
PEACHES, choice per basket		1 50 @ 1 75
Peaches, common per basket		75 @ 1 25
APPLES, choice, per bbl		2 50 @ 3 50
Apples, common, per bbl		1 25 @ 2 00
PEARS, Bartlett, per bbl		10 00 @15 00
Pears, common, per bbl		1 75 @ 5 00
PUMPKINS, Cheese, per 100		8 00 @12 00
TOMATOES, per bushel		50 @ 75

N. Y. Live Stock Markets.—The Cattle markets have been fairly supplied during the past five weeks, the average being 5,247 head per week. With a lessened demand in hot weather the city prices fell ¾c. per lb. the second week and 1c. more at the next market. Only 3,900 bullocks were received during the next week, and prices went up 1c. without supplying the demand. For the week ending August 18th the very large number of 6,302 were received, and over 6,000 sold at a decline of ¾c. from the previous week. This was the largest supply since September of last year. Prices ranged from 10c.

to 10½c. per lb. estimated dressed weight for prime animals; 8½c.@9½c. for fair to good, 6c.@8c. for very poor to ordinary, the average of all sales being 8¾c., making a decline of 1¼c. for the month.

Sheep and Lambs.—The average receipts amount to 12,509 per week. They have been selling well at nearly uniform rates; or 5c.@5¾c. per lb. live weight, for ordinary to prime sheep—a few 6c. Lambs are worth 7¼c.@8½c., and if extra fat, 9c. Store sheep for Fall and Winter feeding are selling at $3½@4½ each.

Live Hogs.—Receipts average 9,352 for the past five weeks. They have been selling slowly during the extreme hot weather. Aug. 18th, prime corn-fed hogs were worth 4@4¼c., and still-fed 3¾c per lb. live weight, a decline of more than 1c. per lb. this month.

The Weather—Has been hot, and showery, for most of the month—just adapted to make corn grow. A good deal of thunder. Our daily notes, condensed, read: *July* 22 to 24, clear, warm—25, cloudy, heavy rain at night—26, clear, hot. 06°—27. showers—28, clear, hot, thunder shower at night—29 to 31, warm, with showers each day—*August* 1 to 5, clear, hot, the mercury reaching 94° in the shade on the 3d—6, hot, with heavy thunder shower—7, clear, warm—8, 9, thunder showers—10, clear, hot—11, thunder shower—12 to 15, clear, cooler—16, heavy thunder shower—17, light rain—18 to 20, clear, fine, moderately cool.

Rain Fall for July, 8.76 inches—a very large quantity for one month. The Barometer ranged from 29.50 to 30.10.

Thermometer at 6 A. M., New-York.

[Observations carefully made upon a standard Thermometer (Fahrenheit.)—*r* indicates rain—*s*, snow.]

JULY.

1	66	8	70*r*	15	70*r*	22	63	29	71*r*		
2	70	9	67	16	71*r*	23	64	30	73*r*		
3	70	10	68*r*	17	66*r*	24	65	31	72*r*		
4	70	11	68	18	65	25	70		— —		
5	67*r*	12	69	19	66	26	70*r*	Aver'e.	68°		
6	68*r*	13	71*r*	20	68	27	75*r*				
	67	14	66*r*	21	72*r*	28	70				

AUGUST.

1	72	4	74	7	68	10	72	13	67		
2	74	5	73	8	72*r*	11	75*r*	14	69		
3	76	6	71*r*	9	71	12	72	15	73		

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PEARS	do.	do.
PLUMS	do.	do.
PEACHES	do.	do.

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Duc de Malakoff	50	Vicomptesse Hericart	40
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Fillmore	50	Victory	75
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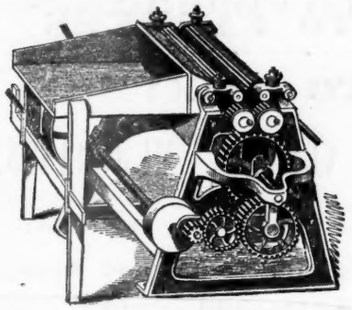

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PRICES.—No. 1 Machine, to dress 2500 lbs straw in 10 hours $355; **No. 2,** $255; **No. 3, Hand Machine** $155, delivered at the factory. Read the following:

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Gentlemen: On the 19th day of March we drew to the mill of N. G. Akin thirty-nine hundred and thirty (3930) pounds of flax straw, which he dressed through the Old Brake, and we received four hundred and eighty-one (481) pounds dressed flax.

We, about the first of June, drew to the mill of Wm. H. Buckley fourty-four hundred and ten (4410) pounds of flax straw, which was dressed through one of your Patent Flax Brakes; we received eight hundred and five (805) pounds of dressed flax.

The flax was grown on the same piece of land, and there was no perceptible difference in the quality of the flax, except that the portion drawn to Akin's mill was rotted in the Fall of 1862, and that drawn to Mr. Buckley's Mill was spring rotted, which is considered not as good, from the fact that it loses part of the oily matter from the fiber, and thus not yield as much per ton of straw as the fall rotted.

You will perceive by the above statement that we received from Mr. Akin's mill 245 pounds nearly of dressed flax per ton of straw, and from Mr. Buckley's mill 365 pounds of dressed flax per ton, which makes a difference of 120 pounds per ton in favor of your Brake.

We are recommending our neighbors to take their flax to one of your Brakes to have it dressed, although it is fifteen miles to the nearest one at present.

J. B. WEEKS.
L. L. WEEKS.

I certify that the above statement is correct, as I saw the Weigher's receipts for both lots of straw, and weighed the dressed flax myself that was dressed at my mill. The flax dressed at Mr. Akin's mill is correct, no doubt, as the above gentlemen are perfectly reliable.

W. H. BUCKLEY.

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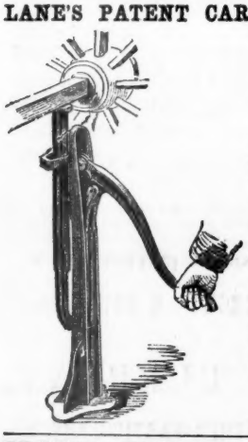

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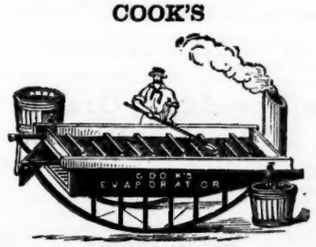

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[Any of the following books can be obtained at the office of the *Agriculturist* at the prices named, or they will be forwarded by mail, *post paid*, on receipt of the price. Other books not named in the list will be procured and sent to subscribers when desired, if the price be forwarded. All of these books may be procured by any one making up a library. Those we esteem specially valuable, are marked with a *.]

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Contents for September, 1863.

INDEX TO "BASKET," OR SHORTER ARTICLES.

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We want a large number of new readers to see, and get acquainted with the *Agriculturist* before January, for those who do so will generally bring along other new readers to begin with the next volume. As a special bounty or inducement, we make the following offers:

Every **new** *name arriving on and after September 1st, will be at once entered on our books to the end of* 1864, *and receive not only volume* 23 *complete, but also the remaining numbers published this year—all for a single year's subscription,* **if** *the name is distinctly stated to be a* **new** *one, as noted below,*)—Thus:*

1 *New Subscribers for* 1864, *received during September, will get the paper for October, November, and December, of this year,* FREE.

2 *Those received during October, will get the November and December numbers, of this year,* FREE.

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N. B.—The above offers extend to *all* new subscribers, whether they are received singly, or in clubs, or on premium lists, or from Agricultural Societies, or otherwise.

***N. B.**—Since many old subscribers are renewing in advance, it is important that *new* subscribers' names be marked as "NEW" when sent in, if the extra numbers are desired, *for we shall not send these extra numbers unless they are specially and definitely asked for.*

GOOD PAY is offered to those who collect Clubs of Subscribers. See page 281. This is a good time to get them; the above "Special Bounty," and the Strawberry Premium, will aid canvassing now. See next item.

THE GREAT STRAWBERRY is for *all* Subscribers for 1864, who apply in accordance with terms. Read the terms carefully through, on page 259. No distinction made between old and new subscribers.

To Wm. P——. and Many Others.—A letter before us, from Wm. P——, encloses 10 cents for expenses on Strawberry plants for two, but not a mark, in or upon the letter, indicates the P. O. or State, and we can not tell *which* one of the twenty of the same name on our books sent the letter. This is a sample of other letters on file, "waiting for something to turn up." From the usual habit of dating letters at the town only, and omitting the State, we are often greatly bothered, and frequently unable to dispose of a letter. We have more names on our books than any other publisher in the world (we write every name—other large publishers write only one name of a club of subscribers on the package of papers), and of course we have more difficulty than others.—*Moral*: Always write every name plainly, give the *Post Office, County* and *State* of every name, and tell briefly, but plainly and fully, just what is desired.

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"Washington, N. Y., Sept. 1st, 1863.

The enclosed $1.05 is for the *Agriculturist* for 1864, (and Strawberry) to be sent to George Washington, at Washington P. O., Dutchess Co., N. Y. He is a *new* subscriber and want the extra numbers. JOHN FARMER.

To Orange Judd, N. Y. City."

If more money and names are enclosed, state definitely just what is desired, particularizing the *new* and *old* names, and what each wants. Though a name be a familiar one, we may not remember just where to find it among 75,000 others; so please NEVER forget to give Post Office and State. Seal the letter tightly, and address it on the outside plainly to: Orange Judd, New-York City.

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We *enjoy* publishing a paper so cheaply as to place it within the reach of the million, and shall spare no effort to keep the terms of the paper down to the same low figures as for nearly 22 years past, though its increased value is really cheapening the price from year to year. We mean to keep on lowering the terms, by making the paper better, and better still, for the same money.

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